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 1: Forstrom TL, winkelmann RK.

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Acute, generalized panniculitis with amylase and lipase i skin.

Arch Dermatol. 1975 Apr;111(4):497-502.

PMID: 1122151 [PubMed - indexed for MEDLINE]

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Acute, generalized panniculitis with amylase and lipase in skin.

Forstrom TL, winkelmann RK.

A patient had an unusual acute, generalized panniculitis. The patient had a five-fold elevation of urinary amylase level and a slightly elevated serum lipase level without any signs or symptoms of pancreatic disease. A secretin test caused an eightfold elevation in urinary amylase level and some elevation of serum lipase and amylase levels, whereas study of duodenal drainage revealed no abnormalities. Skin specimens from the lesions showed considerable amylase and lipase activity, whereas specimens from controls and from subsequent patients with panniculitis showed no such abnormalities. Autopsy showed a normal pancreas, both grossly and microscopically.

PMID: 1122151 [PubMed - indexed for MEDLINE]

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Acute, generalized panniculitis with amylase and lipase i
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Arch Dermatol. 1975 Apr;111(4):497-502.

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One

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[Vasoactive intestinal peptide receptors in the airways of smokers with chronic bronchitis.](#)
Eur Respir J. 2004 Dec;24(6):958-63.
 PMID: 15572539 [PubMed - indexed for MEDLINE]

2: [Onoue S, Endo K, Ohmori Y, Yamada S, Kimura R, Yajima T, Kashimoto K.](#) [Related Articles](#), [1](#)

[Long-acting analogue of vasoactive intestinal peptide, \[R 20, 21, L17\]-VIP-GRR \(IK312532\), protects rat alveolar cells from the cytotoxicity of cigarette smoke.](#)
Regul Pept. 2004 Dec 15;123(1-3):193-9.
 PMID: 15518912 [PubMed - in process]

3: [Onoue S, Ohmori Y, Endo K, Yamada S, Kimura R, Yajima T.](#) [Related Articles](#), [1](#)

[Vasoactive intestinal peptide and pituitary adenylate cyclase-activating polypeptide attenuate the cigarette smoke extract-induced apoptotic death of rat alveolar L2 cells.](#)
Eur J Biochem. 2004 May;271(9):1757-67.
 PMID: 15096214 [PubMed - indexed for MEDLINE]

4: [Sergejeva S, Hoshino H, Yoshihara S, Kashimoto K, Lotvall J, Linden A.](#) [Related Articles](#), [1](#)

[A synthetic VIP peptide analogue inhibits neutrophil recruitment in rat airways in vivo.](#)
Regul Pept. 2004 Feb 15;117(2):149-54.
 PMID: 14700751 [PubMed - indexed for MEDLINE]

5: [Sclano G.](#) [Related Articles](#), [1](#)

Asthma, nasal polyposis and ulcerative colitis: a new perspective.

Clin Exp Allergy. 2002 Aug;32(8):1144-9. Review. No abstract available.

PMID: 12190649 [PubMed - indexed for MEDLINE]

6: Kinhult J, Uddman R, Laan M, Linden A, Cardell LO. Related Articles, I

Pituitary adenylate cyclase-activating peptide inhibits neutrophil chemotaxis.

Peptides. 2001 Dec;22(12):2151-4.

PMID: 11786203 [PubMed - indexed for MEDLINE]

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Pituitary adenylate cyclase-activating peptide inhibits neutrophil chemotaxis.

Kinhult J, Uddman R, Laan M, Linden A, Cardell LO

Allergy laboratory, Department of Otorhinolaryngology, Malmo University Hospital, Malmo, Sweden.

Pituitary adenylate cyclase-activating peptide 38 (PACAP) is a neuropeptide that displays several biological effects of interest in the context of airway diseases such as asthma and chronic obstructive pulmonary disease. These effects include inhibition of airway and vascular smooth muscle tone as well as modulation of inflammatory cell activity. However, little is known about the effect of PACAP on granulocytes. The present study was designed to investigate if PACAP and the closely related peptide vasoactive intestinal peptide (VIP) could affect neutrophil migration. A standard 48 well chemotaxis chamber was used to assess the effects of PACAP on N-Formyl-L-methionyl-L-leucyl-L-phenylalanine (fMLP)-induced neutrophil chemotaxis and spontaneous random migration. PACAP 38 and VIP inhibited fMLP-induced human neutrophil chemotaxis. Furthermore, both peptides also exhibited a dose-related trend toward inhibiting the spontaneous, unstimulated migration of neutrophils. Since enhanced cell migration in cell chamber systems is reported

to correlate with increased invasive properties *in vivo*, the presented inhibitory effects of PACAP 38 on neutrophil chemotaxis, supports the idea of an anti-inflammatory role of PACAP. This together with the well documented bronchodilatory capacity of PACAP might indicate a role for PACAP-agonists in future treatment of asthma and other inflammatory airway diseases.

PMID: 11786203 [PubMed - indexed for MEDLINE]

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for **chronic obstructive pulmonary disease AND VIP**

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One

1: [Miotto D, Boschetto P, Bononi I, Zeni E, Cavallesco G, Fabbri LM, Mapp CE.](#)

Vasoactive intestinal peptide receptors in the airways of smokers with chronic bronchitis.
Eur Respir J. 2004 Dec;24(6):958-63.
PMID: 15572539 [PubMed - indexed for MEDLINE]

2: [Onoue S, Endo K, Ohmori Y, Yamada S, Kimura R, Yajima T, Kashimoto K.](#)

Long-acting analogue of vasoactive intestinal peptide, [R 20, 21, L17]-VIP-GRR (IK312532), protects rat alveolar cells from the cytotoxicity of cigarette smoke.
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PMID: 15518912 [PubMed - in process]

3: [Onoue S, Ohmori Y, Endo K, Yamada S, Kimura R, Yajima T.](#)

Vasoactive intestinal peptide and pituitary adenylate cyclase-activating polypeptide attenuate the cigarette smoke extract-induced apoptotic death of rat alveolar L2 cells.
Eur J Biochem. 2004 May;271(9):1757-67.
PMID: 15096214 [PubMed - indexed for MEDLINE]

4: [Sergejeva S, Hoshino H, Yoshihara S, Kashimoto K, Lotvall J, Linden A.](#)

A synthetic VIP peptide analogue inhibits neutrophil recruitment in rat airways in vivo.
Regul Pept. 2004 Feb 15;117(2):149-54.
PMID: 14700751 [PubMed - indexed for MEDLINE]

5: [Springer J, Geppetti P, Fischer A, Groneberg](#)

DA.

- Calcitonin gene-related peptide as inflammatory mediator
Pulm Pharmacol Ther. 2003;16(3):121-30. Review.
PMID: 12749828 [PubMed - indexed for MEDLINE]
- 6: Kinhult J, Uddman R, Laan M, Linden A, Cardell LO. Related Articles, I
- Pituitary adenylate cyclase-activating peptide inhibits neutrophil chemotaxis.
Peptides. 2001 Dec;22(12):2151-4.
PMID: 11786203 [PubMed - indexed for MEDLINE]
- 7: Berend N, Skoog C, Thurlbeck WM. Related Articles, I
- Collateral ventilation in excised human lungs.
J Appl Physiol. 1981 May;50(5):927-30.
PMID: 7228764 [PubMed - indexed for MEDLINE]

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1: J Appl Physiol. 1981 May;50(5):927-30. Related Articles,

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Collateral ventilation in excised human lungs.

Berend N, Skoog C, Thurlbeck WM.

Pressure-volume (PV) curves and single-breath nitrogen (SBN) washout traces were obtained in 32 excised human lungs. Comparison of the volumes at the onset of phage I the SBN traces (V phase IV) and the volumes at the inflection points (VIP) of the PV curves revealed V phase IV to be significantly larger than VIP. We postulated that V phase was caused by bulk airway closure and that the difference between V phase IV and VIP was due to collateral ventilation. To test this we correlated V phase IV -- VIP with age and emphysema grades of the lungs. Significant correlations were obtained, demonstrating that with increasing age and emphysema grade V phase IV -- VIP increased. This is consistent with the documented evidence for decreased resistance to collateral ventilation with increasing age and emphysema. In addition, in a total of 8 lungs we demonstrated that with increasing age and emphysema there is an increasing incidence of total lack of sigmoid deviation in the PV curve.

PMID: 7228764 [PubMed - indexed for MEDLINE]



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One

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Long-acting analogue of vasoactive intestinal peptide, [R 20, 21, L17]-VIP-GRR (IK312532), protects rat alveolar cells from the cytotoxicity of cigarette smoke.
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Vasoactive intestinal peptide and pituitary adenylate cyclase-activating polypeptide attenuate the cigarette smoke extract-induced apoptotic death of rat alveolar L2 cells.
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PMID: 15096214 [PubMed - indexed for MEDLINE]

3: [Sergejeva S, Hoshino H, Yoshihara S, Kashimoto K, Lotvall J, Linden A.](#) [Related Articles](#), [1](#)

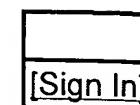
A synthetic VIP peptide analogue inhibits neutrophil recruitment in rat airways in vivo.
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PMID: 14700751 [PubMed - indexed for MEDLINE]

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Peptides. 2001 Dec;22(12):2151-4.
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□ 1: [Ferrazzi S, Waltner-Toews D, Abernathy T, McEwen S.](#) [Related Articles](#), [Cited by](#)

The effects of prehospital advanced life support drug treatment on patient improvement and in-hospital utilization.

Prehosp Emerg Care. 2001 Jul-Sep;5(3):252-60.

PMID: 11446539 [PubMed - indexed for MEDLINE]

□ 2: [Hjalmarsen A, Viitanen M, Jenssen T, Jorde R, Johansen O.](#) [Related Articles](#), [Cited by](#)

Plasma beta-endorphin concentrations are increased in chronic obstructive pulmonary disease patients.

Scand J Clin Lab Invest. 2000 Oct;60(6):501-6.

PMID: 11129066 [PubMed - indexed for MEDLINE]

□ 3: [Wilber ST, Wilson JE, Blanda M, Gerson LW, Meerbaum SO, Janas G.](#) [Related Articles](#), [Cited by](#)

The bronchodilator effect of intravenous glucagon in astl exacerbation: a randomized, controlled trial.

Ann Emerg Med. 2000 Nov;36(5):427-31.

PMID: 11054194 [PubMed - indexed for MEDLINE]

□ 4: [Hjalmarsen A, Aasebo U, Birkeland K, Sager G, Jorde R.](#) [Related Articles](#), [Cited by](#)

Impaired glucose tolerance in patients with chronic hypo pulmonary disease.

Diabetes Metab. 1996 Feb;22(1):37-42.

PMID: 8697294 [PubMed - indexed for MEDLINE]

□ 5: [Suchner U, Rothkopf MM, Stanislaus G, Elwyn DH, Kvetan V, Askanazi J.](#) [Related Articles](#), [Cited by](#)

 Growth hormone and pulmonary disease. Metabolic effects in patients receiving parenteral nutrition.
Arch Intern Med. 1990 Jun;150(6):1225-30.
PMID: 2112905 [PubMed - indexed for MEDLINE]

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Growth hormone and pulmonary disease. Metabolic effects in patients receiving parenteral nutrition.

Suchner U, Rothkopf MM, Stanislaus G, Elwyn DH, Kvetan V, Askanazi J.

Department of Medicine, East Orange, (NJ) Veterans Administration Medical Center 07019.

Six severely malnourished patients with chronic obstructive pulmonary disease were maintained for 3 days with infusions of 5% dextrose in water followed by 12 days of eucaloric total parenteral nutrition. On days 8 through 11, they received 30 micrograms/d of growth hormone and twice this amount on days 11 through 15. Growth hormone had no significant effects on the plasma concentration of glucose, cortisol, or glucagon but caused a 50% increase in insulin and a 250% increase in somatomedin C concentrations. A positive nitrogen balance of 2 g/d due to growth hormone was probably mediated by insulin. Growth hormone-induced increases in energy expenditure and fat oxidation and decrease in glucose oxidation cannot be accounted for by insulin. The ability of growth hormone to improve nitrogen balance may be particularly important for malnourished

patients with chronic obstructive pulmonary disease who, because of their pulmonary insufficiency, are intolerant of excess nutrients.

PMID: 2112905 [PubMed - indexed for MEDLINE]

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 1: Diabetes Metab. 1996 Feb;22(1):37-42. [Related Articles](#),

Impaired glucose tolerance in patients with chronic hypoxic pulmonary disease.

Hjalmarsen A, Aasebo U, Birkeland K, Sager G, Jordal A.

Department of Pulmonary Medicine, University Hospital Tromso, Norway.

This study investigated glucose metabolism and glucose-mediated hormone responses in patients with chronic respiratory hypoxaemia. Glucose as well as insulin, glucagon, adrenaline, cortisol and growth hormone (GH) were measured before and at 30, 60 and 120 min during an oral glucose-tolerance test. The following chronic obstructive pulmonary disease (COPD) patients were studied: 10 normoxaemic (mean paO_2 $10.9 \pm 0.4 \text{ kPa}$), 10 hypoxaemic (mean paO_2 $7.6 \pm 0.2 \text{ kPa}$ before, and $10.6 \pm 0.4 \text{ after 24-h oxygen therapy}$, and 6 hypoxaemic patients on long-term oxygen therapy (LTOT) (mean paO_2 $10.9 \pm 0.7 \text{ kPa}$ before and $7.1 \pm 0.3 \text{ after 4 h with less than 0.5 litre oxygen per minute}$). The hypoxaemic patients were tested both with and without (or reduced) oxygen therapy. Twenty healthy sex- and age-matched subjects served as controls. Plasma glucose at 120 min was significantly higher in LTOT patients than controls ($p < 0.01$), normoxaemic patients ($p < 0.01$) or hypoxaemic patients ($p < 0.01$). The areas under the curve

plasma glucose and insulin were significantly higher in both the LTOT and hypoxaemic groups compared to controls (0.01 and 0.05, respectively). Glucose values for normoxaemic COPD patients were similar to those for controls. Glucagon, adrenaline, cortisol and GH levels did not differ significantly between the groups. A 4-h low-dose or oxygen-free interval in the LTOT group or 24 h of oxygen supplementation in the hypoxaemic group did not affect glucose and hormone levels significantly. It is concluded that severely hypoxaemic CO patients have altered glucose metabolism which cannot be readily explained by changes in gluco-regulatory hormones or short-term alterations in oxygenation.

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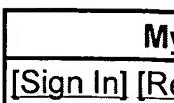
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Impaired glucose tolerance in patients with chronic hypoxic pulmonary disease.

Hjalmarsen A, Aasebo U, Birkeland K, Sager G, Jordal A, et al.

Department of Pulmonary Medicine, University Hospital Tromsø, Norway.

This study investigated glucose metabolism and glucose-mediated hormone responses in patients with chronic respiratory hypoxaemia. Glucose as well as insulin, glucagon, adrenaline, cortisol and growth hormone (GH) were measured before and at 30, 60 and 120 min during an oral glucose-tolerance test. The following chronic obstructive pulmonary disease (COPD) patients were studied: 10 normoxaemic (mean paO_2 10.9 ± 0.4 kPa), 10 hypoxaemic (mean paO_2 7.6 ± 0.2 kPa before, and 10.6 ± 0.4 after 24-h oxygen therapy, and 6 hypoxaemic patients on long-term oxygen therapy (LTOT) (mean paO_2 10.9 ± 0.7 kPa before, and 7.1 ± 0.3 after 4 h with less than 0.5 litre oxygen per minute). The hypoxaemic patients were tested both with and without (or reduced) oxygen therapy. Twenty healthy sex- and age-matched subjects served as controls. Plasma glucose at 120 min was significantly higher in LTOT patients than controls ($p < 0.01$), normoxaemic patients ($p < 0.01$) or hypoxaemic patients ($p < 0.01$). The areas under the curve

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- Γ 1: [Miotto D, Boschetto P, Bononi I, Zeni E, Cavallesco G, Fabbri LM, Mapp CE.](#) Related Articles, I
- Vasoactive intestinal peptide receptors in the airways of smokers with chronic bronchitis.
Eur Respir J. 2004 Dec;24(6):958-63.
PMID: 15572539 [PubMed - indexed for MEDLINE]
- Γ 2: [Onoue S, Endo K, Ohmori Y, Yamada S, Kimura R, Yajima T, Kashimoto K.](#) Related Articles, I
- Long-acting analogue of vasoactive intestinal peptide, [R 20, 21, L17]-VIP-GRR (IK312532), protects rat alveolar cells from the cytotoxicity of cigarette smoke.
Regul Pept. 2004 Dec 15;123(1-3):193-9.
PMID: 15518912 [PubMed - in process]
- Γ 3: [Onoue S, Ohmori Y, Endo K, Yamada S, Kimura R, Yajima T.](#) Related Articles, I
- Vasoactive intestinal peptide and pituitary adenylate cyclase-activating polypeptide attenuate the cigarette smoke extract-induced apoptotic death of rat alveolar L2 cells.
Eur J Biochem. 2004 May;271(9):1757-67.
PMID: 15096214 [PubMed - indexed for MEDLINE]
- Γ 4: [Sergejeva S, Hoshino H, Yoshihara S, Kashimoto K, Lotvall J, Linden A.](#) Related Articles, I
- A synthetic VIP peptide analogue inhibits neutrophil recruitment in rat airways in vivo.
Regul Pept. 2004 Feb 15;117(2):149-54.
PMID: 14700751 [PubMed - indexed for MEDLINE]
- Γ 5: [Springer J, Geppetti P, Fischer A, Groneberg](#) Related Articles, I

DA.

-  Calcitonin gene-related peptide as inflammatory mediator
Pulm Pharmacol Ther. 2003;16(3):121-30. Review.
PMID: 12749828 [PubMed - indexed for MEDLINE]
- 6:** Kinhult J, Uddman R, Laan M, Linden A, Cardell LO. Related Articles, I
-  Pituitary adenylate cyclase-activating peptide inhibits neutrophil chemotaxis.
Peptides. 2001 Dec;22(12):2151-4.
PMID: 11786203 [PubMed - indexed for MEDLINE]
- 7:** Berend N, Skoog C, Thurlbeck WM. Related Articles, I
-  Collateral ventilation in excised human lungs.
J Appl Physiol. 1981 May;50(5):927-30.
PMID: 7228764 [PubMed - indexed for MEDLINE]

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1: [Onoue S, Endo K, Ohmori Y, Yamada S, Kimura R, Yajima T, Kashimoto K.](#) [Related Articles](#), [1](#)

Long-acting analogue of vasoactive intestinal peptide, [R 20, 21, L17]-VIP-GRR (IK312532), protects rat alveolar cells from the cytotoxicity of cigarette smoke.
Regul Pept. 2004 Dec 15;123(1-3):193-9.
PMID: 15518912 [PubMed - in process]

2: [Onoue S, Ohmori Y, Endo K, Yamada S, Kimura R, Yajima T.](#) [Related Articles](#), [1](#)

Vasoactive intestinal peptide and pituitary adenylate cyclase-activating polypeptide attenuate the cigarette smoke extract-induced apoptotic death of rat alveolar L2 cells.
Eur J Biochem. 2004 May;271(9):1757-67.
PMID: 15096214 [PubMed - indexed for MEDLINE]

3: [Sergejeva S, Hoshino H, Yoshihara S, Kashimoto K, Lotvall J, Linden A.](#) [Related Articles](#), [1](#)

A synthetic VIP peptide analogue inhibits neutrophil recruitment in rat airways in vivo.
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4: [Kinhult J, Uddman R, Laan M, Linden A, Cardell LO.](#) [Related Articles](#), [1](#)

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PMID: 11786203 [PubMed - indexed for MEDLINE]

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□ 1: [Ferrazzi S, Waltner-Toews D, Abernathy T, McEwen S.](#) [Related Articles](#), [Cited by](#)

The effects of prehospital advanced life support drug treatment on patient improvement and in-hospital utilization.

Prehosp Emerg Care. 2001 Jul-Sep;5(3):252-60.

PMID: 11446539 [PubMed - indexed for MEDLINE]

□ 2: [Hjalmarsen A, Viitanen M, Jenssen T, Jorde R, Johansen O.](#) [Related Articles](#), [Cited by](#)

Plasma beta-endorphin concentrations are increased in chronic obstructive pulmonary disease patients.

Scand J Clin Lab Invest. 2000 Oct;60(6):501-6.

PMID: 11129066 [PubMed - indexed for MEDLINE]

□ 3: [Wilber ST, Wilson JE, Blanda M, Gerson LW, Meerbaum SO, Janas G.](#) [Related Articles](#), [Cited by](#)

The bronchodilator effect of intravenous glucagon in asthmatic exacerbation: a randomized, controlled trial.

Ann Emerg Med. 2000 Nov;36(5):427-31.

PMID: 11054194 [PubMed - indexed for MEDLINE]

□ 4: [Hjalmarsen A, Aasebo U, Birkeland K, Sager G, Jorde R.](#) [Related Articles](#), [Cited by](#)

Impaired glucose tolerance in patients with chronic hypoxemic pulmonary disease.

Diabetes Metab. 1996 Feb;22(1):37-42.

PMID: 8697294 [PubMed - indexed for MEDLINE]

□ 5: [Suchner U, Rothkopf MM, Stanislaus G, Elwyn DH, Kvetan V, Askanazi J.](#) [Related Articles](#), [Cited by](#)

-  Growth hormone and pulmonary disease. Metabolic effects in patients receiving parenteral nutrition.
Arch Intern Med. 1990 Jun;150(6):1225-30.
PMID: 2112905 [PubMed - indexed for MEDLINE]

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1: Costes F, Roche F, Pichot V, Vergnon JM, Garet M, Barthelemy JC.

Influence of exercise training on cardiac baroreflex sensitivity in patients with COPD.

Eur Respir J. 2004 Mar;23(3):396-401.

PMID: 15065828 [PubMed - indexed for MEDLINE]

2: Costes F, Agresti A, Court-Fortune I, Roche F, Vergnon JM, Barthelemy JC.

Noninvasive ventilation during exercise training improves exercise tolerance in patients with chronic obstructive pulmonary disease.

J Cardiopulm Rehabil. 2003 Jul-Aug;23(4):307-13.

PMID: 12894005 [PubMed - indexed for MEDLINE]



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□ 1: [Vizza CD, Letizia C, Sciomer S, Naeije R, Della Rocca G, Di Roma A, Musaro S, Quattrucci S, Gaudio C, Battagliese A, Badagliacca R, D'Erasmo E, Fedele F.](#) Related Articles, 1

Increased plasma levels of adrenomedullin, a vasoactive peptide, in patients with end-stage pulmonary disease. Regul Pept. 2005 Jan 15;124(1-3):187-93. PMID: 15544858 [PubMed - in process]

□ 2: [Cheng YW, Ye TH.](#) Related Articles, 1
 [Changes of plasma adrenomedullin level during the progression from chronic bronchitis to chronic cor-pulmonale] Zhongguo Yi Xue Ke Xue Yuan Xue Bao. 2004 Apr;26(2):195-7. Chinese.
 PMID: 15171561 [PubMed - indexed for MEDLINE]

□ 3: [Xu P, Dai AG, Zhou HD, Shen HW, Liu LH, Song WD.](#) Related Articles, 1

[Study of the expression and role of adrenomedullin and adrenomedullin receptor in patients with chronic obstructive pulmonary disease] Zhonghua Jie He He Hu Xi Za Zhi. 2003 Dec;26(12):765-8. Chinese.
 PMID: 14720432 [PubMed - indexed for MEDLINE]

□ 4: [Xu P, Dai A, Zhou H, Shen H, Liu L, Song W.](#) Related Articles, 1

Expression and role of adrenomedullin and its receptor in patients with chronic obstructive pulmonary disease. Chin Med J (Engl). 2003 Jun;116(6):863-7.
 PMID: 12877796 [PubMed - indexed for MEDLINE]

5: Cheung B, Leung R.

Related Articles, I



Elevated plasma levels of human adrenomedullin in cardiovascular, respiratory, hepatic and renal disorders.
Clin Sci (Lond). 1997 Jan;92(1):59-62.

PMID: 9038592 [PubMed - indexed for MEDLINE]

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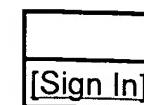
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Entrez PubMed

1: Mueller C, Christ-Crain M, Muller B. Related Articles, I

What cardiologists do need to know about procalcitonin. Clin Lab. 2005;51(1-2):1-4.
PMID: 15719698 [PubMed - in process]

2: Groneberg DA, Quarcoo D, Frossard N, Fischer A. Related Articles, I

Neurogenic mechanisms in bronchial inflammatory diseases. Allergy. 2004 Nov;59(11):1139-52.
PMID: 15461593 [PubMed - in process]

3: Springer J, Amadesi S, Trevisani M, Harrison S, Dinh QT, McGregor GP, Fischer A, Geppetti P, Groneberg DA. Related Articles, I

Effects of alpha calcitonin gene-related peptide in human bronchial smooth muscle and pulmonary artery. Regul Pept. 2004 May 15;118(3):127-34.
PMID: 15003828 [PubMed - indexed for MEDLINE]

4: Christ-Crain M, Jaccard-Stolz D, Bingisser R, Gencay MM, Huber PR, Tamm M, Muller B. Related Articles, I

Effect of procalcitonin-guided treatment on antibiotic use and outcome in lower respiratory tract infections: cluster randomised, single-blinded intervention trial. Lancet. 2004 Feb 21;363(9409):600-7.
PMID: 14987884 [PubMed - indexed for MEDLINE]

5: Polzin A, Pletz M, Erbes R, Raffenberg M, Mauch H, Wagner S, Arndt G, Lode H. Related Articles, I

Procalcitonin as a diagnostic tool in lower respiratory tra

infections and tuberculosis.

Eur Respir J. 2003 Jun;21(6):939-43.

PMID: 12797485 [PubMed - indexed for MEDLINE]

□ 6: Springer J, Geppetti P, Fischer A, Groneberg DA. Related Articles, I

Calcitonin gene-related peptide as inflammatory mediator. Pulm Pharmacol Ther. 2003;16(3):121-30. Review. PMID: 12749828 [PubMed - indexed for MEDLINE]

□ 7: Morgenthaler NG, Struck J, Fischer-Schulz C, Seidel-Mueller E, Beier W, Bergmann A. Related Articles, I

Detection of procalcitonin (PCT) in healthy controls and patients with local infection by a sensitive ILMA. Clin Lab. 2002;48(5-6):263-70. PMID: 12071576 [PubMed - indexed for MEDLINE]

□ 8: Biskobing DM. Related Articles, I

COPD and osteoporosis.

Chest. 2002 Feb;121(2):609-20. Review.

PMID: 11834678 [PubMed - indexed for MEDLINE]

□ 9: Xu H, Zhao M, Wang X. Related Articles, I

[Changes of calcitonin gene-related peptide content in induced sputum from patients with COPD and asthma] Zhonghua Jie He He Hu Xi Za Zhi. 1999 Sep;22(9):558-61. Chir

PMID: 11776772 [PubMed - indexed for MEDLINE]

□ 10: Barnes PJ. Related Articles, I

Neurogenic inflammation in the airways.

Respir Physiol. 2001 Mar;125(1-2):145-54. Review.

PMID: 11240158 [PubMed - indexed for MEDLINE]

□ 11: van Staa TP, Leufkens HG, Abenhaim L, Begaud B, Zhang B, Cooper C. Related Articles, I

Use of oral corticosteroids in the United Kingdom.

QJM. 2000 Feb;93(2):105-11.

PMID: 10700481 [PubMed - indexed for MEDLINE]

□ 12: Goldstein MF, Fallon JJ Jr, Hanning R. Related Articles, I

Chronic glucocorticoid therapy-induced osteoporosis in patients with obstructive lung disease.

Chest. 1999 Dec;116(6):1733-49. Review.
PMID: 10593801 [PubMed - indexed for MEDLINE]

- 13: Picado C, Luengo M. Related Articles, I
 Corticosteroid-induced bone loss. Prevention and management.
Drug Saf. 1996 Nov;15(5):347-59. Review.
PMID: 8941496 [PubMed - indexed for MEDLINE]
- 14: Gosney JR, Sissons MC, Allibone RO, Blakey AF. Related Articles, I
 Pulmonary endocrine cells in chronic bronchitis and emphysema.
J Pathol. 1989 Feb;157(2):127-33.
PMID: 2921673 [PubMed - indexed for MEDLINE]
- 15: Chen CF, Yiin KT, Chiang CD, Wang SJ, Lin WH, Guu CT, Jih KS, Lin TM, Huang WL. Related Articles, I
 Demonstration of immunoreactive calcitonin in sera of lung cancer and COPD patients]
Zhonghua Yi Xue Za Zhi (Taipei). 1988 May;41(5):367-74. Chinese. No abstract available.
PMID: 3219649 [PubMed - indexed for MEDLINE]
- 16: Wolf P, Hall C, Kilbourn JP. Related Articles, I
 Demonstration of calcitonin and calmodulin by immunoperoxidase in the cystic fibrosis lung.
Chest. 1986 Mar;89(3):327-30.
PMID: 2419044 [PubMed - indexed for MEDLINE]
- 17: Conte N, Roiter I, Monco MA, Carniato A. Related Articles, I
 [Plasma immunoreactive calcitonin in acute and chronic lung diseases]
Minerva Endocrinol. 1984 Jul-Sep;9(3):359-61. Italian. No abstract available.
PMID: 6533467 [PubMed - indexed for MEDLINE]
- 18: Gould VE, Linnoila RI, Memoli VA, Warren WH. Related Articles, I
 Neuroendocrine components of the bronchopulmonary tract: hyperplasias, dysplasias, and neoplasms.
Lab Invest. 1983 Nov;49(5):519-37. Review.

PMID: 6138458 [PubMed - indexed for MEDLINE]

19: Krauss S, Macy S, Ichiki AT. Related Articles, |

 A study of immunoreactive calcitonin (CT), adrenocorticotrophic hormone (ACTH) and carcinoembryonic antigen (CEA) in lung cancer and other malignancies.

Cancer. 1981 May 15;47(10):2485-92.

PMID: 6268270 [PubMed - indexed for MEDLINE]

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 1: Lab Invest. 1983 Nov;49(5):519-37.[Related Articles](#),

Neuroendocrine components of the bronchopulmonary tract: hyperplasias, dysplasias and neoplasms.

Gould VE, Linnoila RI, Memoli VA, Warren WH.

The dispersed neuroendocrine (NE) system is represented by the bronchopulmonary tract by the solitary neuroendocrine cells and the neuroepithelial bodies (NEBs).

Immunohistochemically, neuron-specific enolase, serotonin, bombesin, and calcitonin are demonstrable in both components, whereas leu-enkephalin is demonstrable only in solitary NE cells. The precise function of and interplay between these two components under physiologic and pathologic conditions are not entirely clear. Current indications are that NEBs act as intrapulmonary chemoreceptors sensitive to hypoxia and hypercapnia, whereas solitary NE cells may have a paracrine, regulator function. Even less clear is the possible role of solitary NE cells and NEBs in the processes associated with intrauterine and neonatal pulmonary growth and maturation. Various experimental manipulations have resulted in proliferation of solitary NE cells and NEBs. Of particular interest is the apparently selective proliferative effect on NEBs shown by several nitroso compounds. Diethylnitrosamine administration to hamsters for several weeks results in an

increase in the number of NEBs and an increase in the number of cells per NEB. These hyperplastic NEBs express the same immunoreactive hormones as their normal counterparts. However, when NEB cells from diethylnitrosamine-treated hamsters are cultured *in vitro*, a notable proportion of the resulting endocrine cells express ACTH immunoreactivity. Interestingly, the neoplasms that eventually develop in these hamsters are not comprised of NEBs. Studies on human bronchi from specimens resected for various types of neoplasms and for bronchiectasis with or without associated chronic obstructive pulmonary disease have revealed frequent hyperplasias of solitary NE cells and NEBs. In about 10% of the specimens, dysplastic aggregates of solitary NE cells and NEBs are found. Unexpected "microcarcinoids" and tumorlets are also seen. The mildly and moderately hyperplastic solitary NE cells and NEBs tend to express the hormones indigenous to the bronchi, whereas in the severely hyperplastic and dysplastic cells, "ectopic" hormones may also be expressed; the latter include predominantly ACTH and vasoactive intestinal polypeptide. A distinct hyperplasia of NEBs has been found in the lungs from individuals living at altitudes ranging from 3400 to 4500 meters; these changes may represent an adaptive response to chronic hypoxia parallel to the hyperplastic carotid paraganglia that may be found in the same type of population. Bronchopulmonary NE neoplasms comprise a spectrum that includes typical carcinoids, well-differentiated NE carcinomas, and NE carcinomas of intermediate and small cell types. Typical carcinoids are predominantly central, display little if any pleomorphism, are richly granulated by electron microscopy, and by immunohistochemistry express predominantly, although not exclusively, hormones indigenous to their site of origin. (ABSTRACT TRUNCATED AT 400 WORDS)

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Chronic glucocorticoid therapy-induced osteoporosis in patients with obstructive lung disease.

Goldstein MF, Fallon JJ Jr, Harning R.

Asthma Center, Philadelphia, PA, USA.

Long-term glucocorticoid (GC) therapy has been instrumental in decreasing morbidity and mortality in a variety of chronic inflammatory diseases, including persistent asthma. Long term GC therapy is also widely prescribed for COPD. One of the important and often unrecognized side effects of chronic GC therapy is secondary osteoporosis. The risk of GC-induced bone loss is roughly correlated with daily dose, duration, and total cumulative lifetime dose of GC treatment. Oral prednisone increases the risk of bone loss and fractures. High doses of inhaled GCs may also increase the risk of osteopenia/osteoporosis, but the risk appears to be less than that associated with oral GCs. Hormone replacement therapy, oral and parenteral bisphosphonates, supplemental calcium and vitamin D, calcitonin, and fluoride compounds have been used, experimentally, in the management of GC-induced bone loss. Asthma and COPD specialists are key prescribers of oral and inhaled steroids and are likely to encounter patients w

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significant bone loss. Despite known risk factors and the availability of reliable diagnostic tools to recognize bone loss, the opportunity to slow, reverse, and treat bone loss is often missed. We present a review of the current literature regarding the incidence, treatment, and prevention of osteopenia/osteoporosis secondary to chronic GC therapy in adult asthma and COPD patients. Guidelines are presented regarding the identification of patients at risk for developing GC-induced secondary bone loss, and therapeutic alternatives are discussed.

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ELSEVIER SCIENCE
FULL-TEXT ARTICLE

Neurogenic inflammation in the airways.

Barnes PJ.

Department of Thoracic Medicine, National Heart and Lung Institute, Imperial College School of Medicine, Dovehouse Street, SW3 6LY, London, UK. p.j.barnes@ic.ac.uk

Release of neuropeptides, including tachykinins and calcitonin gene-related peptide, from sensory nerves via a local reflex may have inflammatory effects in the airways. This neurogenic inflammation may be initiated by activation of sensory nerves by inflammatory mediators and irritants. Neurogenic inflammation is well developed in rodents and may contribute to the inflammatory response to allergens, infections and irritants in animal models. However, the role of neurogenic inflammation in airway inflammatory diseases, such as asthma and COPD is still uncertain as there is little direct evidence for the involvement of sensory neuropeptides in human airways. Initial clinical studies using strategies to block neurogenic inflammation have not been encouraging, but it is important to study more severe forms of airway disease in more prolonged studies in the future to explore the role of neurogenic inflammation.



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1: Groneberg DA, Quarcoo D, Frossard N, Fischer A.

Neurogenic mechanisms in bronchial inflammatory diseases.

Allergy. 2004 Nov;59(11):1139-52.

PMID: 15461593 [PubMed - in process]

2: Springer J, Amadesi S, Trevisani M, Harrison S, Dinh QT, McGregor GP, Fischer A, Geppetti P, Groneberg DA.

Effects of alpha calcitonin gene-related peptide in human bronchial smooth muscle and pulmonary artery.

Regul Pept. 2004 May 15;118(3):127-34.

PMID: 15003828 [PubMed - indexed for MEDLINE]

3: Springer J, Geppetti P, Fischer A, Groneberg DA.

Calcitonin gene-related peptide as inflammatory mediator

Pulm Pharmacol Ther. 2003;16(3):121-30. Review.

PMID: 12749828 [PubMed - indexed for MEDLINE]

4: Xu H, Zhao M, Wang X.

[Changes of calcitonin gene-related peptide content in induced sputum from patients with COPD and asthma]

Zhonghua Jie He He Hu Xi Za Zhi. 1999 Sep;22(9):558-61. Chin

PMID: 11776772 [PubMed - indexed for MEDLINE]

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[Changes of calcitonin gene-related peptide content in induced sputum from patients with COPD and asthma]

[Article in Chinese]

Xu H, Zhao M, Wang X.

Third Hospital of Beijing Medical University, Beijing 100083.

OBJECTIVE: To explore the role of sensory neuropeptides calcitonin gene-related peptide (CGRP) in the pathogenesis of chronic airway inflammatory diseases COPD and bronchial asthma. **METHODS:** Patients with COPD ($n = 19$), bronchial asthma ($n = 14$), all were in stable stage and 10 normal volunteers were examined. After hypertonic saline inhalation challenge in all subjects, CGRP-LI concentration in the induced sputum was measured by radioimmunoassay. Cellular content was assayed by microscopic analysis, the relation between CGRP-LI level and FEV₁ value was calculated by linear regression. **RESULTS:** The sputum CGRP concentrations in patients with COPD and patients with asthma were (15.97 ± 2.15) ng/L, (18.79 ± 3.91) ng/L, respectively, both were significantly higher than the

in normal volunteers (2.36 ± 0.35) ng/L. Moreover, CGI concentrations in induced sputum in each disease group were correlated with the degree of airflow obstruction, $r = -0.50$ and -0.61 , respectively ($P < 0.05$). The percentage of neutrophil cell count ($64.9 \pm 2.9\%$) was significantly higher in patients with COPD ($P < 0.01$), while the percentage of eosinophil cell count ($5.8 \pm 0.5\%$) was increased in patients with asthma ($P < 0.01$). CONCLUSIONS: The data suggest that CGRP release may participate in the chronic inflammation of patients with COPD and bronchial asthma.

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Inhaled corticosteroid effects on bone metabolism in asthma and mild chronic obstructive pulmonary disease. Cochrane Database Syst Rev. 2002;(1):CD003537. Review. PMID: 11869676 [PubMed - indexed for MEDLINE]
- Γ 2: Chang WK, Hung KY, Huang JW, Wu KD, Tsai TJ. [Related Articles](#), [Cited by](#)
Chronic fatigue in long-term peritoneal dialysis patients. Am J Nephrol. 2001 Nov-Dec;21(6):479-85. PMID: 11799265 [PubMed - indexed for MEDLINE]
- Γ 3: Dimai HP, Domej W, Leb G, Lau KH. [Related Articles](#), [Cited by](#)
Bone loss in patients with untreated chronic obstructive pulmonary disease is mediated by an increase in bone resorption associated with hypercapnia. J Bone Miner Res. 2001 Nov;16(11):2132-41. PMID: 11697811 [PubMed - indexed for MEDLINE]
- Γ 4: Bikle DD, Halloran B, Fong L, Steinbach L, Shellito J. [Related Articles](#), [Cited by](#)
Elevated 1,25-dihydroxyvitamin D levels in patients with chronic obstructive pulmonary disease treated with prednisone. J Clin Endocrinol Metab. 1993 Feb;76(2):456-61. PMID: 8432789 [PubMed - indexed for MEDLINE]
- Γ 5: Lukert BP, Adams JS. [Related Articles](#), [Cited by](#)
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Arch Intern Med. 1976 Nov;136(11):1249-53.

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Elevated 1,25-dihydroxyvitamin D levels in patients with chronic obstructive pulmonary disease treated with prednisone.

Bikle DD, Halloran B, Fong L, Steinbach L, Shellito J.

Endocrine Unit, VA Medical Center, San Francisco, California.

Glucocorticoid administration is a well established cause of osteopenia. Mechanisms underlying the deleterious effect of glucocorticoids on bone may include direct inhibition of bone formation as well as indirect effects through changes in intestinal calcium absorption, renal calcium excretion, and levels of the calcitropic hormones. To further examine the potential role of the calcitropic hormones we measured serum levels of PTH and 1,25 dihydroxyvitamin D [1,25(OH)₂D], as well as serum and urine levels of calcium and vertebral bone density in patients with chronic obstructive pulmonary disease being managed with or without prednisone. Patients treated with prednisone had lower spine bone density (53 vs. 106 mg/cm³) and higher serum calcium (2.40 vs. 2.33 mmol/l), urine calcium (6.9 vs. 2.7 mmol/24 h) and 1,25(OH)₂D levels (147 vs. 95 pmol/L). Compared to patients not treated with glucocorticoids, PTH levels also

tended to be higher (33 vs. 26 microliters-eq/ml), but the difference was not significant. Serum and urine calcium levels correlated positively with 1,25(OH)2D levels, but none of these measurements correlated with PTH levels. Our results suggest that prednisone treatment alters the regulation of 1,25(OH)2D production, and this may contribute to the loss of bone mineral induced by prednisone.

PMID: 8432789 [PubMed - indexed for MEDLINE]

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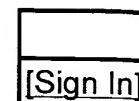
Lukert BP, Adams JS.

Serum calcium and phosphorus levels, urinary excretion of calcium, phosphorus, and cyclic adenosine monophosphate (cAMP), and plasma parathyroid hormone (PTH) concentrations were determined in 11 normal subjects and nine patients maintained on long-term prednisone therapy for chronic obstructive pulmonary disease. These same determinations were repeated in five of the prednisone-treated patients during the course of a seven-day calcium infusion. Prior to the infusion, the prednisone-treated patients demonstrated significantly elevated serum levels of PTH ($P < .005$) and increased rates of urinary phosphate and cAMP excretion ($P < .005$) when compared with normal subjects. After initiation of calcium infusion, the previous elevations in all of these determinations decreased to near normal levels. These data suggest that the effects of secondary hyperparathyroidism in patients maintained on long-term prednisone therapy may be overcome when calcium is administered intravenously.

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- Focused, minimally invasive radio-guided parathyroidectomy: a feasible and safe option for elderly patients with primary hyperparathyroidism.
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Chest. 1989 Sep;96(3):564-71.
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Applicability of a threshold loading device for inspiratory muscle testing and training in patient with COPD.

Goldstein R, De Rosie J, Long S, Dolmage T, Avendan MA.

Department of Medicine, University of Toronto, Ontario, Canada.

We evaluated application of a Pth device for testing inspiratory muscle endurance among patients with severe stable COPD. Endurance time in five patients was reproducible. Magnitude of variability was +/- 1.26 minutes with a range of +/- 0.19 to +/- 2.28 minutes. Eleven patients completed inspiratory muscle training twice daily for four weeks in addition to their usual program of respiratory rehabilitation. The mean age of our experimental cohort was 65 years; FEV1, 33 +/- 12 percent predicted; and DSB, 42.7 percent predicted. Baseline measurements showed no significant differences in pulmonary function, exercise tolerance, inspiratory muscle strength or inspiratory muscle endurance between control and study groups. Following training, the study group significantly improved inspiratory muscle endurance as evidenced by an increase in endurance time while breathing against the same absolute external P-

load used during baseline assessments. There were no associated changes in lung mechanics, muscle strength or exercise tolerance.

PMID: 2766815 [PubMed - indexed for MEDLINE]

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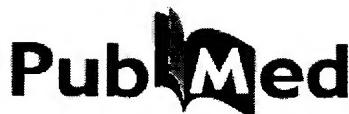
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 [Assessment of the hypothalamic-hypophyseal-adrenal axis in patients with chronic obstructive lung disease. Comparison of inhalant with systemic glucocorticoid therapy]
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[Assessment of the hypothalamic-hypophyseal-adrenal axis in patients with chronic obstructive lung disease. Comparison of inhalant with systemic glucocorticoid therapy]

[Article in German]

Santen RT, Schlaghecke R, Schwalen A.

Klinik fur Endokrinologie, Heinrich-Heine-Universitat Dusseldorf.

OBJECTIVE: The action of inhalation and systemic treatment of chronic obstructive pulmonary disease by suppressing the hypothalamo-hypophyseal-adrenal axis was compared in patients with chronic obstructive pulmonary disease (COPD). **PATIENTS AND METHODS:** Adrenocorticotrophic hormone (ACTH) and cortisol concentrations were evaluated after a corticotropin-releasing hormone (CRH)-test in 50 patients (aged 43 +/- 14 years) with chronic obstructive pulmonary disease (COPD) receiving inhalant glucocorticoid treatment (IGC), 61 patients (aged 54 +/- 11 years) with COPD on systemic glucocorticoid treatment (SGC) and 50 healthy volunteers (32 +/- 4 years). **RESULTS:** All 50 patients on IGC had normal CRH test

results. 30 of 61 patients with SGC had decreased cortisol response (12 patients had no and 18 a reduced rise in cortisol). ACTH concentration was lower in patients on IGC than in the control group (basal ACTH 15.6 pg/ml and 24 pg/ml, respectively; after stimulation 40.3 vs 54.4 pg/ml, respectively). But systemic glucocorticoid treatment clearly caused suppression of basal (12.1 pg/ml) and stimulated (12.1 pg/ml) ACTH levels with correspondingly decreased cortisol levels (basal: 75.1 and 118.7 ng/ml [IGC], respectively, and after stimulation 128.5 and 225.9 ng/ml). CONCLUSION Patients with COPD on inhalant glucocorticoid treatment have a clearly lower risk of adrenal cortical insufficiency than those on oral glucocorticoid treatment. But some suppression of ACTH secretion is demonstrable even in the former. Clinical significance of these findings seems unlikely. Development of adrenal cortical insufficiency need not be feared in patients treated with inhalant glucocorticoids.

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Chronic obstructive pulmonary disease is associated with enhanced bronchial expression of FGF-1, FGF-2, and FGFR-1.
J Pathol. 2005 Mar 16; [Epub ahead of print]
PMID: 15772985 [PubMed - as supplied by publisher]

2: [Stemmler S, Arinir U, Klein W, Rohde G, Hoffjan S, Wirkus N, Reinitz-Rademacher K, Bufe A, Schultze-Werninghaus G, Epplen JT.](#) Related Articles, Lin

Association of interleukin-8 receptor alpha polymorphisms with chronic obstructive pulmonary disease and asthma.
Genes Immun. 2005 Mar 17; [Epub ahead of print]
PMID: 15772681 [PubMed - as supplied by publisher]

3: [Spurrell JC, Wiegler S, Zaheer RS, Sanders SP, Proud D.](#) Related Articles, Lin

HUMAN AIRWAY EPITHELIAL CELLS PRODUCE IP-10 (CXCL10) IN VITRO AND IN VIVO UPON RHINOVIRUS INFECTION.
Am J Physiol Lung Cell Mol Physiol. 2005 Mar 11; [Epub ahead of print]
PMID: 15764644 [PubMed - as supplied by publisher]

4: [Takabatake N, Sata M, Abe S, Inoue S, Saito H, Yuki H, Shibata Y, Kubota I.](#) Related Articles, Lin

Impaired systemic cell-mediated immunity and increased susceptibility to acute respiratory tract infections in patients with COPD.
Respir Med. 2005 Apr;99(4):485-92.
PMID: 15763456 [PubMed - in process]

5: [Celik P, Sakar A, Havlucu Y, Yuksel H, Turkdogan P, Yorgancioglu A.](#) Related Articles, Lin

Short-term effects of montelukast in stable patients with moderate to severe COPD.
Respir Med. 2005 Apr;99(4):444-50.
PMID: 15763450 [PubMed - in process]

6: [Hodge S, Hodge G, Holmes M, Reynolds PN.](#) Related Articles, Lin

Increased peripheral blood T-cell apoptosis and decreased Bcl-2 in chronic obstructive pulmonary disease.
Immunol Cell Biol. 2005 Apr;83(2):160-6.
PMID: 15748212 [PubMed - in process]

7: [Sin DD.](#) Related Articles, Lin

Therapeutic options for chronic obstructive pulmonary disease: present and

- future.
Eur Rev Med Pharmacol Sci. 2004 Nov-Dec;8(6):247-58.
PMID: 15745384 [PubMed - in process]
- 8: [Pons J, Sauleda J, Ferrer JM, Barcelo B, Fuster A, Regueiro V, Julia MR, Agusti AG.](#) Related Articles, Lin
Blunted gamma delta T-lymphocyte response in chronic obstructive pulmonary disease.
Eur Respir J. 2005 Mar;25(3):441-6.
PMID: 15738286 [PubMed - in process]
- 9: [de Boer WI.](#) Related Articles, Lin
- Perspectives for cytokine antagonist therapy in COPD.
Drug Discov Today. 2005 Jan 15;10(2):93-106.
PMID: 15718158 [PubMed - in process]
- 10: [Hasani A, Toms N, Agnew JE, Lloyd J, Dilworth JP.](#) Related Articles, Lin
Mucociliary clearance in COPD can be increased by both a D2/beta2 and a standard beta2 agonists.
Respir Med. 2005 Feb;99(2):145-51.
PMID: 15715181 [PubMed - in process]
- 11: [Chung KF.](#) Related Articles, Lin
Drugs to suppress cough.
Expert Opin Investig Drugs. 2005 Jan;14(1):19-27.
PMID: 15709918 [PubMed - in process]
- 12: [Barnes PJ.](#) Related Articles, Lin
The role of anticholinergics in chronic obstructive pulmonary disease.
Am J Med. 2004 Dec 20;117 Suppl 12A:24S-32S. Review.
PMID: 15693640 [PubMed - indexed for MEDLINE]
- 13: [Trifilieff A, Keller TH, Press NJ, Howe T, Gedeck P, Beer D, Walker C.](#) Related Articles, Lin
CGH2466, a combined adenosine receptor antagonist, p38 mitogen-activated protein kinase and phosphodiesterase type 4 inhibitor with potent in vitro and in vivo anti-inflammatory activities.
Br J Pharmacol. 2005 Jan 31; [Epub ahead of print]
PMID: 15685201 [PubMed - as supplied by publisher]
- 14: [Mata M, Sarria B, Buenestado A, Cortijo J, Cerdá M, Morcillo EJ.](#) Related Articles, Lin
Phosphodiesterase 4 inhibition decreases MUC5AC expression induced by epidermal growth factor in human airway epithelial cells.
Thorax. 2005 Feb;60(2):144-52.
PMID: 15681504 [PubMed - indexed for MEDLINE]
- 15: [Kranenburg AR, de Boer WI, Alagappan VK, Sterk PJ, Sharma HS.](#) Related Articles, Lin
Enhanced bronchial expression of vascular endothelial growth factor and receptors (Flk-1 and Flt-1) in patients with chronic obstructive pulmonary disease.
Thorax. 2005 Feb;60(2):106-13.
PMID: 15681497 [PubMed - indexed for MEDLINE]
- 16: [Lipworth BJ.](#) Related Articles, Lin
Phosphodiesterase-4 inhibitors for asthma and chronic obstructive

-  pulmonary disease.
Lancet. 2005 Jan 8;365(9454):167-75. Review.
PMID: 15639300 [PubMed - indexed for MEDLINE]
- 17: [Pignatti P, Moscato G, Casarini S, Delmastro M, Poppa M, Brunetti G, Pisati P, Balbi B.](#) Related Articles, Lin
-  Downmodulation of CXCL8/IL-8 receptors on neutrophils after recruitment in the airways.
J Allergy Clin Immunol. 2005 Jan;115(1):88-94.
PMID: 15637552 [PubMed - indexed for MEDLINE]
- 18: [Sun CX, Young HW, Molina JG, Volmer JB, Schnermann J, Blackburn MR.](#) Related Articles, Lin
-  A protective role for the A1 adenosine receptor in adenosine-dependent pulmonary injury.
J Clin Invest. 2005 Jan;115(1):35-43.
PMID: 15630442 [PubMed - indexed for MEDLINE]
- 19: [Gross NJ.](#) Related Articles, Lin
-  Tiotropium bromide.
Chest. 2004 Dec;126(6):1946-53. Review.
PMID: 15596697 [PubMed - indexed for MEDLINE]
- 20: [Miotto D, Boschetto P, Bononi I, Zeni E, Cavallesco G, Fabbri LM, Mapp CE.](#) Related Articles, Lin
-  Vasoactive intestinal peptide receptors in the airways of smokers with chronic bronchitis.
Eur Respir J. 2004 Dec;24(6):958-63.
PMID: 15572539 [PubMed - indexed for MEDLINE]
- 21: [O'Donnell RA, Richter A, Ward J, Angco G, Mehta A, Rousseau K, Swallow DM, Holgate ST, Djukanovic R, Davies DE, Wilson SJ.](#) Related Articles, Lin
-  Expression of ErbB receptors and mucins in the airways of long term current smokers.
Thorax. 2004 Dec;59(12):1032-40.
PMID: 15563701 [PubMed - indexed for MEDLINE]
- 22: [Springer J, Groneberg DA, Pregla R, Fischer A.](#) Related Articles, Lin
-  Inflammatory cells as source of tachykinin-induced mucus secretion in chronic bronchitis.
Regul Pept. 2005 Jan 15;124(1-3):195-201.
PMID: 15544859 [PubMed - in process]
- 23: [Korn S, Wiewrodt R, Walz YC, Becker K, Mayer E, Krummenauer F, Buhl R.](#) Related Articles, Lin
-  Characterization of the interstitial lung and peripheral blood T cell receptor repertoire in cigarette smokers.
Am J Respir Cell Mol Biol. 2005 Feb;32(2):142-8. Epub 2004 Nov 11.
PMID: 15539458 [PubMed - indexed for MEDLINE]
- 24: [Hewson CA, Edbrooke MR, Johnston SL.](#) Related Articles, Lin
-  PMA induces the MUC5AC respiratory mucin in human bronchial epithelial cells, via PKC, EGF/TGF-alpha, Ras/Raf, MEK, ERK and Sp1-dependent mechanisms.
J Mol Biol. 2004 Nov 26;344(3):683-95.
PMID: 15533438 [PubMed - indexed for MEDLINE]

- 25: [Deshmukh HS, Case LM, Wesselkamper SC, Borchers MT, Martin LD, Shertzer HG, Nadel JA, Leikauf GD.](#) Related Articles, Lin
Metalloproteinases mediate mucin 5AC expression by epidermal growth factor receptor activation.
Am J Respir Crit Care Med. 2005 Feb 15;171(4):305-14. Epub 2004 Nov 5.
PMID: 15531749 [PubMed - indexed for MEDLINE]
- 26: [Onoue S, Endo K, Ohmori Y, Yamada S, Kimura R, Yajima T, Kashimoto K.](#) Related Articles, Lin
Long-acting analogue of vasoactive intestinal peptide, [R15, 20, 21, L17]-VIP-GRR (IK312532), protects rat alveolar L2 cells from the cytotoxicity of cigarette smoke.
Regul Pept. 2004 Dec 15;123(1-3):193-9.
PMID: 15518912 [PubMed - in process]
- 27: [Mao L, Bai CX, Zhang M, Wang YH, Chen J.](#) Related Articles, Lin
[Expression of epidermal growth factor receptor and MUC5AC on human airway with chronic obstructive pulmonary disease]
Zhonghua Jie He He Hu Xi Za Zhi. 2004 Sep;27(9):585-8. Chinese.
PMID: 15498267 [PubMed - in process]
- 28: [Zhong H, Belardinelli L, Maa T, Zeng D.](#) Related Articles, Lin
Synergy between A2B adenosine receptors and hypoxia in activating human lung fibroblasts.
Am J Respir Cell Mol Biol. 2005 Jan;32(1):2-8. Epub 2004 Oct 7.
PMID: 15472138 [PubMed - indexed for MEDLINE]
- 29: [Groneberg DA, Quarcoo D, Frossard N, Fischer A.](#) Related Articles, Lin
Neurogenic mechanisms in bronchial inflammatory diseases.
Allergy. 2004 Nov;59(11):1139-52.
PMID: 15461593 [PubMed - in process]
- 30: [Andersson A, Qvarfordt I, Laan M, Sjostrand M, Malmhall C, Riise GC, Cardell LO, Linden A.](#) Related Articles, Lin
Impact of tobacco smoke on interleukin-16 protein in human airways, lymphoid tissue and T lymphocytes.
Clin Exp Immunol. 2004 Oct;138(1):75-82.
PMID: 15373908 [PubMed - indexed for MEDLINE]
- 31: [Barnes PJ, Hansel TT.](#) Related Articles, Lin
Prospects for new drugs for chronic obstructive pulmonary disease.
Lancet. 2004 Sep 11;364(9438):985-96. Review.
PMID: 15364192 [PubMed - indexed for MEDLINE]
- 32: [Hodge SJ, Hodge GL, Holmes M, Reynolds PN.](#) Related Articles, Lin
Flow cytometric characterization of cell populations in bronchoalveolar lavage and bronchial brushings from patients with chronic obstructive pulmonary disease.
Cytometry B Clin Cytom. 2004 Sep;61(1):27-34.
PMID: 15351979 [PubMed - indexed for MEDLINE]
- 33: [Keam SJ, Keating GM.](#) Related Articles, Lin
Tiotropium bromide. A review of its use as maintenance therapy in patients with COPD.

Treat Respir Med. 2004;3(4):247-68. Review.
PMID: 15350163 [PubMed - indexed for MEDLINE]

- 34: [Butorov IV, Verbitskii ON, Butorov SI.](#) Related Articles, Lin

 [Blockers of angiotensin receptors: a novel approach to the treatment of secondary pulmonary hypertension]
Ter Arkh. 2004;76(6):84-7. Russian.
PMID: 15332584 [PubMed - indexed for MEDLINE]

- 35: [Sukkar MB, Issa R, Xie S, Oltmanns U, Newton R, Chung KF.](#) Related Articles, Lin

 Fractalkine/CX3CL1 production by human airway smooth muscle cells: induction by IFN-gamma and TNF-alpha and regulation by TGF-beta and corticosteroids.
Am J Physiol Lung Cell Mol Physiol. 2004 Dec;287(6):L1230-40. Epub 2004 Aug 20.
PMID: 15321787 [PubMed - indexed for MEDLINE]

- 36: [Howarth PH, Knox AJ, Amrani Y, Tliba O, Panettieri RA Jr, Johnson M.](#) Related Articles, Lin

 Synthetic responses in airway smooth muscle.
J Allergy Clin Immunol. 2004 Aug;114(2 Suppl):S32-50. Review.
PMID: 15309017 [PubMed - indexed for MEDLINE]

- 37: [Larj MJ, Bleeker ER.](#) Related Articles, Lin

 Therapeutic responses in asthma and COPD. Corticosteroids.
Chest. 2004 Aug;126(2 Suppl):138S-149S; discussion 159S-161S. Review.
PMID: 15302774 [PubMed - indexed for MEDLINE]

- 38: [Donohue JF.](#) Related Articles, Lin

 Therapeutic responses in asthma and COPD. Bronchodilators.
Chest. 2004 Aug;126(2 Suppl):125S-137S; discussion 159S-161S. Review.
PMID: 15302773 [PubMed - indexed for MEDLINE]

- 39: [Massaro D, Massaro GD.](#) Related Articles, Lin

 Estrogen regulates pulmonary alveolar formation, loss, and regeneration in mice.
Am J Physiol Lung Cell Mol Physiol. 2004 Dec;287(6):L1154-9. Epub 2004 Aug 6.
PMID: 15298854 [PubMed - indexed for MEDLINE]

- 40: [Bryborn M, Adner M, Cardell LO.](#) Related Articles, Lin

 Interleukin-4 increases murine airway response to kinins, via up-regulation of bradykinin B1-receptors and altered signalling along mitogen-activated protein kinase pathways.
Clin Exp Allergy. 2004 Aug;34(8):1291-8.
PMID: 15298572 [PubMed - indexed for MEDLINE]

- 41: [Roth M, Johnson PR, Borger P, Bihl MP, Rudiger JJ, King GG, Ge Q, Hostettler K, Burgess JK, Black JL, Tamm M.](#) Related Articles, Lin

 Dysfunctional interaction of C/EBPalpha and the glucocorticoid receptor in asthmatic bronchial smooth-muscle cells.
N Engl J Med. 2004 Aug 5;351(6):560-74.
PMID: 15295049 [PubMed - indexed for MEDLINE]

- 42: [Birrell MA, Patel HJ, McCluskie K, Wong S, Leonard T, Yacoub MH, Belvisi MG.](#) Related Articles, Lin

PPAR-gamma agonists as therapy for diseases involving airway

-  neutrophilia.
Eur Respir J. 2004 Jul;24(1):18-23.
PMID: 15293600 [PubMed - indexed for MEDLINE]
- 43: [Dalonzo GE Jr.](#) Related Articles, Lin
 Levalbuterol in the treatment of patients with asthma and chronic obstructive lung disease.
J Am Osteopath Assoc. 2004 Jul;104(7):288-93. Review.
PMID: 15293593 [PubMed - indexed for MEDLINE]
- 44: [Rohde G, Gevaert P, Holtappels G, Fransen L, Borg I, Wiethege A, Arinir U, Tavernier J, Schultze-Werninghaus G, Bachert C.](#) Related Articles, Lin
 Soluble interleukin-5 receptor alpha is increased in acute exacerbation of chronic obstructive pulmonary disease.
Int Arch Allergy Immunol. 2004 Sep;135(1):54-61. Epub 2004 Jul 29.
PMID: 15286446 [PubMed - indexed for MEDLINE]
- 45: [ZuWallack AR, ZuWallack RL.](#) Related Articles, Lin
 Tiotropium bromide, a new, once-daily inhaled anticholinergic bronchodilator for chronic-obstructive pulmonary disease.
Expert Opin Pharmacother. 2004 Aug;5(8):1827-35.
PMID: 15264997 [PubMed - in process]
- 46: [Homma T, Kato A, Hashimoto N, Batchelor J, Yoshikawa M, Imai S, Wakiguchi H, Saito H, Matsumoto K.](#) Related Articles, Lin
 Corticosteroid and cytokines synergistically enhance toll-like receptor 2 expression in respiratory epithelial cells.
Am J Respir Cell Mol Biol. 2004 Oct;31(4):463-9. Epub 2004 Jul 8.
PMID: 15242847 [PubMed - indexed for MEDLINE]
- 47: [Young HW, Molina JG, Dimina D, Zhong H, Jacobson M, Chan LN, Chan TS, Lee JJ, Blackburn MR.](#) Related Articles, Lin
 A3 adenosine receptor signaling contributes to airway inflammation and mucus production in adenosine deaminase-deficient mice.
J Immunol. 2004 Jul 15;173(2):1380-9.
PMID: 15240734 [PubMed - indexed for MEDLINE]
- 48: [Fuke S, Betsuyaku T, Nasuhara Y, Morikawa T, Katoh H, Nishimura M.](#) Related Articles, Lin
 Chemokines in bronchiolar epithelium in the development of chronic obstructive pulmonary disease.
Am J Respir Cell Mol Biol. 2004 Oct;31(4):405-12. Epub 2004 Jun 25.
PMID: 15220136 [PubMed - indexed for MEDLINE]
- 49: [Kim S, Nadel JA.](#) Related Articles, Lin
 Role of neutrophils in mucus hypersecretion in COPD and implications for therapy.
Treat Respir Med. 2004;3(3):147-59. Review.
PMID: 15219174 [PubMed - indexed for MEDLINE]
- 50: [Groneberg DA, Witt H, Adcock IM, Hansen G, Springer J.](#) Related Articles, Lin
 Smads as intracellular mediators of airway inflammation.
Exp Lung Res. 2004 Apr-May;30(3):223-50. Review.
PMID: 15195555 [PubMed - indexed for MEDLINE]
- 51: [Churg A, Wang RD, Tai H, Wang X, Xie C, Wright JL.](#) Related Articles, Lin

-  Tumor necrosis factor-alpha drives 70% of cigarette smoke-induced emphysema in the mouse.
Am J Respir Crit Care Med. 2004 Sep 1;170(5):492-8. Epub 2004 Jun 7.
PMID: 15184206 [PubMed - indexed for MEDLINE]
- 52: [Traves SL, Smith SJ, Barnes PJ, Donnelly LE.](#) Related Articles, Lin
-  Specific CXC but not CC chemokines cause elevated monocyte migration in COPD: a role for CXCR2.
J Leukoc Biol. 2004 Aug;76(2):441-50. Epub 2004 May 20.
PMID: 15155777 [PubMed - indexed for MEDLINE]
- 53: [Folkerts G, Nijkamp FP.](#) Related Articles, Lin
-  Airway nitrergic pathways: is there therapeutic potential in asthma and COPD?
Curr Opin Pharmacol. 2004 Jun;4(3):202-6.
PMID: 15140409 [PubMed - indexed for MEDLINE]
- 54: [Schulz C, Kratzel K, Wolf K, Schroll S, Kohler M, Pfeifer M.](#) Related Articles, Lin
-  Activation of bronchial epithelial cells in smokers without airway obstruction and patients with COPD.
Chest. 2004 May;125(5):1706-13.
PMID: 15136380 [PubMed - indexed for MEDLINE]
- 55: [Shao MX, Nakanaga T, Nadel JA.](#) Related Articles, Lin
-  Cigarette smoke induces MUC5AC mucin overproduction via tumor necrosis factor-alpha-converting enzyme in human airway epithelial (NCI-H292) cells.
Am J Physiol Lung Cell Mol Physiol. 2004 Aug;287(2):L420-7. Epub 2004 Apr 30.
PMID: 15121636 [PubMed - indexed for MEDLINE]
- 56: [Onoue S, Ohmori Y, Endo K, Yamada S, Kimura R, Yajima T.](#) Related Articles, Lin
-  Vasoactive intestinal peptide and pituitary adenylate cyclase-activating polypeptide attenuate the cigarette smoke extract-induced apoptotic death of rat alveolar L2 cells.
Eur J Biochem. 2004 May;271(9):1757-67.
PMID: 15096214 [PubMed - indexed for MEDLINE]
- 57: [Hirata Terra J, Montano I, Schilb A, Millward TA.](#) Related Articles, Lin
-  Development of a microplate bioassay for monocyte chemoattractant protein-1 based on activation of p44/42 mitogen-activated protein kinase.
Anal Biochem. 2004 Apr 1;327(1):119-25.
PMID: 15033519 [PubMed - indexed for MEDLINE]
- 58: [Springer J, Amadesi S, Trevisani M, Harrison S, Dinh QT, McGregor GP, Fischer A, Geppetti P, Groneberg DA.](#) Related Articles, Lin
-  Effects of alpha calcitonin gene-related peptide in human bronchial smooth muscle and pulmonary artery.
Regul Pept. 2004 May 15;118(3):127-34.
PMID: 15003828 [PubMed - indexed for MEDLINE]
- 59: [Niu QX, He SH.](#) Related Articles, Lin
-  [Proteinase-activated receptor-2 and inflammation in respiratory tract]
Sheng Li Ke Xue Jin Zhan. 2003 Oct;34(4):373-5. Review. Chinese. No abstract available
PMID: 14992028 [PubMed - indexed for MEDLINE]

- 60: [Fisher JT, Vincent SG, Gomeza J, Yamada M, Wess J.](#) [Related Articles](#), [Lin](#)
- Loss of vagally mediated bradycardia and bronchoconstriction in mice lacking M₂ or M₃ muscarinic acetylcholine receptors.
FASEB J. 2004 Apr;18(6):711-3. Epub 2004 Feb 20.
PMID: 14977875 [PubMed - indexed for MEDLINE]
- 61: [Marathias KP, Agroyannis B, Mavromoustakos T, Matsoukas J, Vlahakos DV.](#) [Related Articles](#), [Lin](#)
- Hematocrit-lowering effect following inactivation of renin-angiotensin system with angiotensin converting enzyme inhibitors and angiotensin receptor blockers.
Curr Top Med Chem. 2004;4(4):483-6. Review.
PMID: 14965314 [PubMed - indexed for MEDLINE]
- 62: [Xu P, Dai AG, Zhou HD, Shen HW, Liu LH, Song WD.](#) [Related Articles](#), [Lin](#)
- [Study of the expression and role of adrenomedullin and adrenomedullin receptor in patients with chronic obstructive pulmonary disease]
Zhonghua Jie He He Hu Xi Za Zhi. 2003 Dec;26(12):765-8. Chinese.
PMID: 14720432 [PubMed - indexed for MEDLINE]
- 63: [Pease JE, Sabroe I.](#) [Related Articles](#), [Lin](#)
- The role of interleukin-8 and its receptors in inflammatory lung disease: implications for therapy.
Am J Respir Med. 2002;1(1):19-25.
PMID: 14720072 [PubMed - in process]
- 64: [Rorke S, Holgate ST.](#) [Related Articles](#), [Lin](#)
- Targeting adenosine receptors: novel therapeutic targets in asthma and chronic obstructive pulmonary disease.
Am J Respir Med. 2002;1(2):99-105. Review.
PMID: 14720064 [PubMed - indexed for MEDLINE]
- 65: [Chen JL, Ran PX.](#) [Related Articles](#), [Lin](#)
- [A study on the role of vascular endothelial growth factor in emphysema of rat caused by smog exposure]
Zhonghua Jie He He Hu Xi Za Zhi. 2003 Nov;26(11):671-4. Chinese.
PMID: 14703440 [PubMed - indexed for MEDLINE]
- 66: [Sabroe I, Whyte MK, Wilson AG, Dower SK, Hubbard R, Hall I.](#) [Related Articles](#), [Lin](#)
- Toll-like receptor (TLR) 4 polymorphisms and COPD.
Thorax. 2004 Jan;59(1):81. No abstract available.
PMID: 14694256 [PubMed - indexed for MEDLINE]
- 67: [Zuhlik IE, Kanniess F, Richter K, Nielsen-Gode D, Bohme S, Jorres RA, Magnussen H.](#) [Related Articles](#), [Lin](#)
- Montelukast attenuates the airway response to hypertonic saline in moderate-to-severe COPD.
Eur Respir J. 2003 Dec;22(6):926-30.
PMID: 14680080 [PubMed - indexed for MEDLINE]
- 68: [Struckmann N, Schwering S, Wiegand S, Gschnell A, Yamada M, Kummer W, Wess J, Haberberger RV.](#) [Related Articles](#), [Lin](#)
- Role of muscarinic receptor subtypes in the constriction of peripheral airways: studies on receptor-deficient mice.

Mol Pharmacol. 2003 Dec;64(6):1444-51.
PMID: 14645675 [PubMed - indexed for MEDLINE]

- 69: [Celli B, ZuWallack R, Wang S, Kesten S.](#) Related Articles, Lin
 Improvement in resting inspiratory capacity and hyperinflation with tiotropium in COPD patients with increased static lung volumes. Chest. 2003 Nov;124(5):1743-8.
PMID: 14605043 [PubMed - indexed for MEDLINE]
- 70: [Hardaker EL, Bacon AM, Carlson K, Roshak AK, Foley JJ, Schmidt DB, Buckley PT, Comegys M, Panettieri RA Jr, Sarau HM, Belmonte KE.](#) Related Articles, Lin
 Regulation of TNF-alpha- and IFN-gamma-induced CXCL10 expression: participation of the airway smooth muscle in the pulmonary inflammatory response in chronic obstructive pulmonary disease. FASEB J. 2004 Jan;18(1):191-3. Epub 2003 Nov 3.
PMID: 14597565 [PubMed - indexed for MEDLINE]
- 71: [Massaro D, Massaro GD, Baras A, Hoffman EP, Clerch LB.](#) Related Articles, Lin
 Calorie-related rapid onset of alveolar loss, regeneration, and changes in mouse lung gene expression. Am J Physiol Lung Cell Mol Physiol. 2004 May;286(5):L896-906. Epub 2003 Oct 31. Review. Erratum in: Am J Physiol Lung Cell Mol Physiol. 2004 Dec;287(6):L1349.
PMID: 14594731 [PubMed - indexed for MEDLINE]
- 72: [Welte T.](#) Related Articles, Lin
 [Fixed Combination of a Long-Acting beta(2)-Agonist and an Inhaled Steroid. A Therapeutic Option for COPD?] Med Klin (Munich). 2003 Oct 15;98(10):552-61. Review. German.
PMID: 14586509 [PubMed - indexed for MEDLINE]
- 73: [Kirkham PA, Spooner G, Ffoulkes-Jones C, Calvez R.](#) Related Articles, Lin
 Cigarette smoke triggers macrophage adhesion and activation: role of lipid peroxidation products and scavenger receptor. Free Radic Biol Med. 2003 Oct 1;35(7):697-710.
PMID: 14583334 [PubMed - indexed for MEDLINE]
- 74: [Walker JK, Gainetdinov RR, Feldman DS, McFawn PK, Caron MG, Lefkowitz RJ, Premont RT, Fisher JT.](#) Related Articles, Lin
 G protein-coupled receptor kinase 5 regulates airway responses induced by muscarinic receptor activation. Am J Physiol Lung Cell Mol Physiol. 2004 Feb;286(2):L312-9. Epub 2003 Oct 17.
PMID: 14565944 [PubMed - indexed for MEDLINE]
- 75: [DeKorte CJ.](#) Related Articles, Lin
 Current and emerging therapies for the management of chronic inflammation in asthma. Am J Health Syst Pharm. 2003 Oct 1;60(19):1949-59; quiz 1960-1. Review.
PMID: 14531240 [PubMed - indexed for MEDLINE]
- 76: [Beeh KM, Welte T, Buhl R.](#) Related Articles, Lin
 [Tiotropium (Spiriva) - a long-acting inhaled anticholinergic for the treatment of chronic obstructive pulmonary disease (COPD)] Pneumologie. 2003 Sep;57(9):519-25. Review. German.
PMID: 13680472 [PubMed - indexed for MEDLINE]

- 77: [Donnelly LE, Rogers DF.](#) [Related Articles](#), [Links](#)
- Therapy for chronic obstructive pulmonary disease in the 21st century.
Drugs. 2003;63(19):1973-98. Review.
PMID: 12962514 [PubMed - indexed for MEDLINE]
- 78: [Rupp J, Kothe H, Mueller A, Maass M, Dalhoff K.](#) [Related Articles](#), [Links](#)
- Imbalanced secretion of IL-1beta and IL-1RA in Chlamydia pneumoniae-infected mononuclear cells from COPD patients.
Eur Respir J. 2003 Aug;22(2):274-9.
PMID: 12952260 [PubMed - indexed for MEDLINE]
- 79: [Oguri K.](#) [Related Articles](#), [Links](#)
- [Pharmacological action and clinical aspects of salmeterol]
Nippon Yakurigaku Zasshi. 2003 Sep;122(3):265-70. Review. Japanese.
PMID: 12939544 [PubMed - indexed for MEDLINE]
- 80: [Ruse CE, Hill MC, Burton PR, Connolly MJ, Wardlaw AJ, Parker SG.](#) [Related Articles](#), [Links](#)
- Associations between polymorphisms of the high-affinity immunoglobulin receptor and late-onset airflow obstruction in older populations.
J Am Geriatr Soc. 2003 Sep;51(9):1265-9.
PMID: 12919239 [PubMed - indexed for MEDLINE]
- 81: [Chung KF.](#) [Related Articles](#), [Links](#)
- Current and future prospects for drugs to suppress cough.
IDrugs. 2003 Aug;6(8):781-6. Review.
PMID: 12917774 [PubMed - indexed for MEDLINE]
- 82: [Nannini LJ Jr, Flores DM.](#) [Related Articles](#), [Links](#)
- Bronchodilator effect of zafirlukast in subjects with chronic obstructive pulmonary disease.
Pulm Pharmacol Ther. 2003;16(5):307-11.
PMID: 12877822 [PubMed - indexed for MEDLINE]
- 83: [Xu P, Dai A, Zhou H, Shen H, Liu L, Song W.](#) [Related Articles](#), [Links](#)
- Expression and role of adrenomedullin and its receptor in patients with chronic obstructive pulmonary disease.
Chin Med J (Engl). 2003 Jun;116(6):863-7.
PMID: 12877796 [PubMed - indexed for MEDLINE]
- 84: [Kolm G, Zappe H, Schmid R, Riedelberger K, Van den Hoven R.](#) [Related Articles](#), [Links](#)
- Efficacy of montelukast in the treatment of chronic obstructive pulmonary disease in five horses.
Vet Rec. 2003 Jun 28;152(26):804-6.
PMID: 12862169 [PubMed - indexed for MEDLINE]
- 85: [Qiu Y, Zhu J, Bandi V, Atmar RL, Hattotuwa K, Guntupalli KK, Jeffery PK.](#) [Related Articles](#), [Links](#)
- Biopsy neutrophilia, neutrophil chemokine and receptor gene expression in severe exacerbations of chronic obstructive pulmonary disease.
Am J Respir Crit Care Med. 2003 Oct 15;168(8):968-75. Epub 2003 Jul 11.
PMID: 12857718 [PubMed - indexed for MEDLINE]
- 86: [Zhong H, Belardinelli L, Maa T, Feoktistov I, Biaggioni I, Zeng D.](#) [Related Articles](#), [Links](#)

-  A(2B) adenosine receptors increase cytokine release by bronchial smooth muscle cells.
Am J Respir Cell Mol Biol. 2004 Jan;30(1):118-25. Epub 2003 Jul 10.
PMID: 12855406 [PubMed - indexed for MEDLINE]
- 87: [Austin RP, Barton P, Bonnert RV, Brown RC, Cage PA, Cheshire DR, Davis AM, Dougall IG, Ince F, Paireau G, Young A.](#) Related Articles, Lin
-  QSAR and the rational design of long-acting dual D2-receptor/beta 2-adrenoceptor agonists.
J Med Chem. 2003 Jul 17;46(15):3210-20.
PMID: 12852752 [PubMed - indexed for MEDLINE]
- 88: [Hodge SJ, Hodge GL, Reynolds PN, Scicchitano R, Holmes M.](#) Related Articles, Lin
-  Increased production of TGF-beta and apoptosis of T lymphocytes isolated from peripheral blood in COPD.
Am J Physiol Lung Cell Mol Physiol. 2003 Aug;285(2):L492-9.
PMID: 12851215 [PubMed - indexed for MEDLINE]
- 89: [Brown RA, Lever R, Jones NA, Page CP.](#) Related Articles, Lin
-  Effects of heparin and related molecules upon neutrophil aggregation and elastase release in vitro.
Br J Pharmacol. 2003 Jun;139(4):845-53.
PMID: 12813008 [PubMed - indexed for MEDLINE]
- 90: [Piper WD, Malenka DJ, Ryan TJ Jr, Shubrooks SJ Jr, O'Connor GT, Robb JF, Farrell KL, Corliss MS, Hearne MJ, Kellett MA Jr, Watkins MW, Bradley WA, Hettlerman BD, Silver TM, McGrath PD, O'Mears JR, Wennberg DE; Northern New England Cardiovascular Disease Study Group.](#) Related Articles, Lin
-  Predicting vascular complications in percutaneous coronary interventions.
Am Heart J. 2003 Jun;145(6):1022-9.
PMID: 12796758 [PubMed - indexed for MEDLINE]
- 91: [Joos GF, De Swert KO, Schelfhout V, Pauwels RA.](#) Related Articles, Lin
-  The role of neural inflammation in asthma and chronic obstructive pulmonary disease.
Ann N Y Acad Sci. 2003 May;992:218-30. Review.
PMID: 12794061 [PubMed - indexed for MEDLINE]
- 92: [Bu X, Wang C, Pang B.](#) Related Articles, Lin
-  Effects of leukotriene receptor antagonist on chronic obstructive [correctio] of obstructive] pulmonary disease induced pulmonary hypertension.
Chin Med J (Engl). 2003 Mar;116(3):459-61.
PMID: 12781059 [PubMed - indexed for MEDLINE]
- 93: [Abad Santos F, Novalbos J, Gallego Sandin S, Galvez Mugica MA.](#) Related Articles, Lin
-  [Regulation of bronchial tone in chronic obstructive pulmonary disease (COPD): role of muscarinic receptors]
An Med Interna. 2003 Apr;20(4):201-5. Review. Spanish.
PMID: 12768836 [PubMed - indexed for MEDLINE]
- 94: [Li S, Westwick J, Poll C.](#) Related Articles, Lin
-  Transient receptor potential (TRP) channels as potential drug targets in respiratory disease.
Cell Calcium. 2003 May-Jun;33(5-6):551-8. Review.

PMID: 12765700 [PubMed - indexed for MEDLINE]

- 95: [Yang IA, Seeney SL, Wolter JM, Anders EM, McCormack JG, Tunnicliffe AM, Rabnott GC, Shaw JG, Dent AG, Kim ST, Zimmerman PV, Fong KM.](#) Related Articles, Lin
Mannose-binding lectin gene polymorphism predicts hospital admissions for COPD infections.
Genes Immun. 2003 Jun;4(4):269-74.
PMID: 12761563 [PubMed - indexed for MEDLINE]
- 96: [Hasanoglu HC, Yildirim Z, Hasanoglu A, Ozcan C, Gokirmak M, Koksal N, Kalkan S.](#) Related Articles, Lin
Effects of ranitidine on pulmonary function tests of patients with chronic obstructive pulmonary disease.
Pharmacol Res. 2003 Jun;47(6):535-9.
PMID: 12742008 [PubMed - indexed for MEDLINE]
- 97: [Matheson M, Rynell AC, McClean M, Berend N.](#) Related Articles, Lin
Cigarette smoking increases neutrophil formyl methionyl leucyl phenylalanine receptor numbers.
Chest. 2003 May;123(5):1642-6.
PMID: 12740285 [PubMed - indexed for MEDLINE]
- 98: [Ameshima S, Golpon H, Cool CD, Chan D, Vandivier RW, Gardai SJ, Wick M, Nemenoff RA, Geraci MW, Voelkel NF.](#) Related Articles, Lin
Peroxisome proliferator-activated receptor gamma (PPAR γ) expression is decreased in pulmonary hypertension and affects endothelial cell growth.
Circ Res. 2003 May 30;92(10):1162-9. Epub 2003 Apr 24.
PMID: 12714563 [PubMed - indexed for MEDLINE]
- 99: [Floreani AA, Wyatt TA, Stoner J, Sanderson SD, Thompson EG, Allen-Gipson D, Heires AJ.](#) Related Articles, Lin
Smoke and C5a induce airway epithelial intercellular adhesion molecule-1 and cell adhesion.
Am J Respir Cell Mol Biol. 2003 Oct;29(4):472-82. Epub 2003 Apr 24.
PMID: 12714373 [PubMed - indexed for MEDLINE]
- 100: [Ahren IL, Eriksson E, Egesten A, Riesbeck K.](#) Related Articles, Lin
Nontypeable *Haemophilus influenzae* activates human eosinophils through beta-glucan receptors.
Am J Respir Cell Mol Biol. 2003 Nov;29(5):598-605. Epub 2003 Apr 14.
PMID: 12689921 [PubMed - indexed for MEDLINE]
- 101: [Beeh KM, Kornmann O, Buhl R, Culpitt SV, Giembycz MA, Barnes PJ.](#) Related Articles, Lin
Neutrophil chemotactic activity of sputum from patients with COPD: role of interleukin 8 and leukotriene B4.
Chest. 2003 Apr;123(4):1240-7.
PMID: 12684317 [PubMed - indexed for MEDLINE]
- 102: [Nevzorova VA, Konovalova EN, Khomenko AV, Plekhova NG, Pazych SA.](#) Related Articles, Lin
[Cytological and biochemical indices of induced sputum in patients with bronchial asthma and chronic obstructive bronchitis]
Tsitolgiia. 2002;44(12):1212-9. Russian.

PMID: 12683333 [PubMed - indexed for MEDLINE]

- 103: [Coulson FR, Fryer AD.](#) [Related Articles](#), [Links](#)
 Muscarinic acetylcholine receptors and airway diseases.
Pharmacol Ther. 2003 Apr;98(1):59-69. Review.
PMID: 12667888 [PubMed - indexed for MEDLINE]
- 104: [Ferrarotti I, Zorzetto M, Beccaria M, Gile LS, Porta R, Ambrosino N, Pignatti PF, Cerveri I, Pozzi E, Luisetti M.](#) [Related Articles](#), [Links](#)
 Tumour necrosis factor family genes in a phenotype of COPD associated with emphysema.
Eur Respir J. 2003 Mar;21(3):444-9.
PMID: 12661999 [PubMed - indexed for MEDLINE]
- 105: [Pilette C, Ouadrhiri Y, Dimanche F, Vaerman JP, Sibille Y.](#) [Related Articles](#), [Links](#)
 Secretory component is cleaved by neutrophil serine proteinases but its epithelial production is increased by neutrophils through NF-kappa B- and p38 mitogen-activated protein kinase-dependent mechanisms.
Am J Respir Cell Mol Biol. 2003 Apr;28(4):485-98.
PMID: 12654638 [PubMed - indexed for MEDLINE]
- 106: [Roche N, Stirling RG, Lim S, Oliver BG, Chung KF.](#) [Related Articles](#), [Links](#)
 Regulation of protease-activated receptor-1 in mononuclear cells by neutrophil proteases.
Respir Med. 2003 Mar;97(3):228-33.
PMID: 12645829 [PubMed - indexed for MEDLINE]
- 107: [Tuder RM, Zhen L, Cho CY, Taraseviciene-Stewart L, Kasahara Y, Salvemini D, Voelkel NF, Flores SC.](#) [Related Articles](#), [Links](#)
 Oxidative stress and apoptosis interact and cause emphysema due to vascular endothelial growth factor receptor blockade.
Am J Respir Cell Mol Biol. 2003 Jul;29(1):88-97. Epub 2003 Jan 31.
PMID: 12600822 [PubMed - indexed for MEDLINE]
- 108: [Kobashi Y, Matsushima T.](#) [Related Articles](#), [Links](#)
 Clinical analysis of patients requiring long-term mechanical ventilation of over three months: ventilator-associated pneumonia as a primary complication.
Intern Med. 2003 Jan;42(1):25-32.
PMID: 12583614 [PubMed - indexed for MEDLINE]
- 109: [Bekker A, Sorour K, Miller S.](#) [Related Articles](#), [Links](#)
 The use of cardioselective beta-blockers in a patient with idiopathic hypertrophic subaortic stenosis and chronic obstructive pulmonary disease.
J Clin Anesth. 2002 Dec;14(8):589-91.
PMID: 12565117 [PubMed - indexed for MEDLINE]
- 110: [Calverley P, Keating ET, Goldman M, Casty F.](#) [Related Articles](#), [Links](#)
 Conclusion. Lessons from the novel D2 dopamine receptor, beta2-adrenoceptor agonist, Viozan: chronic obstructive pulmonary disease and drug development implications.
Respir Med. 2003 Jan;97 Suppl A:S71-4.
PMID: 12564613 [PubMed - indexed for MEDLINE]
- 111: [Hiller FC, Alderfer V, Goldman M.](#) [Related Articles](#), [Links](#)

-  Long-term use of Viozan (sibenadet HCl) in patients with chronic obstructive pulmonary disease: results of a 1-year study.
Respir Med. 2003 Jan;97 Suppl A:S45-52.
PMID: 12564610 [PubMed - indexed for MEDLINE]
- 112: [Celli B, Halpin D, Hepburn R, Byrne N, Keating ET, Goldman M.](#) Related Articles, Lin
-  Symptoms are an important outcome in chronic obstructive pulmonary disease clinical trials: results of a 3-month comparative study using the Breathlessness, Cough and Sputum Scale (BCSS).
Respir Med. 2003 Jan;97 Suppl A:S35-43.
PMID: 12564609 [PubMed - indexed for MEDLINE]
- 113: [Laursen LC, Lindqvist A, Hepburn T, Lloyd J, Perrett J, Sanders N, Rocchiccioli K.](#) Related Articles, Lin
-  The role of the novel D2/beta2-agonist, Viozan (sibenadet HCl), in the treatment of symptoms of chronic obstructive pulmonary disease: results of a large-scale clinical investigation.
Respir Med. 2003 Jan;97 Suppl A:S23-33.
PMID: 12564608 [PubMed - indexed for MEDLINE]
- 114: [Ind PW, Laitinen L, Laursen L, Wenzel S, Wouters E, Deamer L, Nystrom P.](#) Related Articles, Lin
-  Early clinical investigation of Viozan (sibenadet HCl), a novel D2 dopamine receptor, beta2-adrenoceptor agonist for the treatment of chronic obstructive pulmonary disease symptoms.
Respir Med. 2003 Jan;97 Suppl A:S9-21.
PMID: 12564607 [PubMed - indexed for MEDLINE]
- 115: [Dougall IG, Young A, Ince F, Jackson DM.](#) Related Articles, Lin
-  Dual dopamine D2 receptor and beta2-adrenoceptor agonists for the treatment of chronic obstructive pulmonary disease: the pre-clinical rationale.
Respir Med. 2003 Jan;97 Suppl A:S3-7.
PMID: 12564606 [PubMed - indexed for MEDLINE]
- 116: [Pelaia G, Varella A, Cuda G, Maselli R, Marsico SA.](#) Related Articles, Lin
-  Molecular mechanisms of corticosteroid actions in chronic inflammatory airway diseases.
Life Sci. 2003 Feb 21;72(14):1549-61. Review.
PMID: 12551744 [PubMed - indexed for MEDLINE]
- 117: [Mariani M, Panina-Bordignon P.](#) Related Articles, Lin
-  Analysis of homing receptor expression on infiltrating leukocytes in disease states.
J Immunol Methods. 2003 Feb;273(1-2):103-14. Review.
PMID: 12535801 [PubMed - indexed for MEDLINE]
- 118: [Dart RA, Gollub S, Lazar J, Nair C, Schroeder D, Woolf SH.](#) Related Articles, Lin
-  Treatment of systemic hypertension in patients with pulmonary disease: COPD and asthma.
Chest. 2003 Jan;123(1):222-43. Review.
PMID: 12527626 [PubMed - indexed for MEDLINE]
- 119: [Hirst A, Sloan R.](#) Related Articles, Lin

-  Benzodiazepines and related drugs for insomnia in palliative care.
Cochrane Database Syst Rev. 2002;(4):CD003346. Review.
PMID: 12519593 [PubMed - indexed for MEDLINE]
- 120: [Salpeter S, Ormiston T, Salpeter E.](#) [Related Articles](#), [Links](#)
-  Cardioselective beta-blockers for reversible airway disease.
Cochrane Database Syst Rev. 2002;(4):CD002992. Review.
PMID: 12519582 [PubMed - indexed for MEDLINE]
- 121: [Lemaitre RN, Siscovick DS, Psaty BM, Pearce RM, Raghunathan TE, Whitsel EA, Weinmann SA, Anderson GD, Lin D.](#) [Related Articles](#), [Links](#)
-  Inhaled beta-2 adrenergic receptor agonists and primary cardiac arrest.
Am J Med. 2002 Dec 15;113(9):711-6.
PMID: 12517359 [PubMed - indexed for MEDLINE]
- 122: [Rogers DF.](#) [Related Articles](#), [Links](#)
-  The airway goblet cell.
Int J Biochem Cell Biol. 2003 Jan;35(1):1-6. Review.
PMID: 12467641 [PubMed - indexed for MEDLINE]
- 123: [Stankiewicz W, Dabrowski MP, Chcialowski A, Plusa T.](#) [Related Articles](#), [Links](#)
-  Cellular and cytokine immunoregulation in patients with chronic obstructive pulmonary disease and bronchial asthma.
Mediators Inflamm. 2002 Oct;11(5):307-12.
PMID: 12467523 [PubMed - indexed for MEDLINE]
- 124: [Antonelli Incalzi R, Giordano A, Fuso L, Basso S, Calcagni ML, Reale F, Boniello V, Pistelli R.](#) [Related Articles](#), [Links](#)
-  123I-MIBG radioaerosol lung clearance in COPD patients with fixed and partially reversible obstruction to evaluate the functional status of pulmonary adrenergic innervation.
Nucl Med Commun. 2002 Dec;23(12):1217-20.
PMID: 12464788 [PubMed - indexed for MEDLINE]
- 125: [Houslay MD, Adams DR.](#) [Related Articles](#), [Links](#)
-  PDE4 cAMP phosphodiesterases: modular enzymes that orchestrate signalling cross-talk, desensitization and compartmentalization.
Biochem J. 2003 Feb 15;370(Pt 1):1-18. Review.
PMID: 12444918 [PubMed - indexed for MEDLINE]
- 126: [Horiguchi T, Tachikawa S, Kondo R, Shiga M, Hirose M, Fukumoto K.](#) [Related Articles](#), [Links](#)
-  Study on the usefulness of seratrodast in the treatment of chronic pulmonary emphysema.
Arzneimittelforschung. 2002;52(10):764-8.
PMID: 12442639 [PubMed - indexed for MEDLINE]
- 127: [Hokuto I, Perl AK, Whitsett JA.](#) [Related Articles](#), [Links](#)
-  Prenatal, but not postnatal, inhibition of fibroblast growth factor receptor signaling causes emphysema.
J Biol Chem. 2003 Jan 3;278(1):415-21. Epub 2002 Oct 23.
PMID: 12399466 [PubMed - indexed for MEDLINE]
- 128: [Kranenburg AR, De Boer WI, Van Krieken JH, Mooi WJ, Walters JE, Saxena PR, Sterk PJ, Sharma HS.](#) [Related Articles](#), [Links](#)

-  Enhanced expression of fibroblast growth factors and receptor FGFR-1 during vascular remodeling in chronic obstructive pulmonary disease.
Am J Respir Cell Mol Biol. 2002 Nov;27(5):517-25.
PMID: 12397010 [PubMed - indexed for MEDLINE]
- 129: [Chung KF.](#) Related Articles, Lin
-  Cytokines in chronic obstructive pulmonary disease.
Eur Respir J Suppl. 2001 Dec;34:50s-59s. Review.
PMID: 12392035 [PubMed - indexed for MEDLINE]
- 130: [Abraham G, Brodbeck OE, Ungemach FR.](#) Related Articles, Lin
-  Regulation of equine lymphocyte beta-adrenoceptors under the influence of clenbuterol and dexamethasone.
Equine Vet J. 2002 Sep;34(6):587-93.
PMID: 12357998 [PubMed - indexed for MEDLINE]
- 131: [Lan RS, Stewart GA, Henry PJ.](#) Related Articles, Lin
-  Role of protease-activated receptors in airway function: a target for therapeutic intervention?
Pharmacol Ther. 2002 Sep;95(3):239-57. Review.
PMID: 12243797 [PubMed - indexed for MEDLINE]
- 132: [Anthes JC, Chapman RW, Richard C, Eckel S, Corboz M, Hey JA, Fernandez X, Greenfeder S, McLeod R, Sehring S, Rizzo C, Crawley Y, Shih NY, Piwinski J, Reichard G, Ting P, Carruthers N, Cuss FM, Billah M, Kreutner W, Egan RW.](#) Related Articles, Lin
-  SCH 206272: a potent, orally active tachykinin NK(1), NK(2), and NK(3) receptor antagonist.
Eur J Pharmacol. 2002 Aug 23;450(2):191-202.
PMID: 12206858 [PubMed - indexed for MEDLINE]
- 133: [Polosa R.](#) Related Articles, Lin
-  Adenosine-receptor subtypes: their relevance to adenosine-mediated responses in asthma and chronic obstructive pulmonary disease.
Eur Respir J. 2002 Aug;20(2):488-96. Review.
PMID: 12212985 [PubMed - indexed for MEDLINE]
- 134: [Nishimura K, Tamaoki J, Isono K, Aoshiba K, Nagai A.](#) Related Articles, Lin
-  Beta-adrenergic receptor-mediated growth of human airway epithelial cell lines.
Eur Respir J. 2002 Aug;20(2):353-8.
PMID: 12212967 [PubMed - indexed for MEDLINE]
- 135: [Yoshida N, Nishimaki Y, Sugiyama M, Abe T, Tatsumi T, Tanoue A, Hirasawa A, Tsujimoto G.](#) Related Articles, Lin
-  SNP genotyping in the beta(2)-adrenergic receptor by electronic microchip assay, DHPLC, and direct sequencing.
J Hum Genet. 2002;47(9):500-3.
PMID: 12202992 [PubMed - indexed for MEDLINE]
- 136: [Truog WE, Pallotto E, Clark P, Banks B, Kaftan HA, Ekekezie II, Norberg M, Ballard RA.](#) Related Articles, Lin
-  Interaction of endogenous endothelin-1 and inhaled nitric oxide in term and preterm infants.
Clin Sci (Lond). 2002 Aug;103 Suppl 48:294S-297S.

PMID: 12193107 [PubMed - indexed for MEDLINE]

- 137: [Woolhouse IS, Bayley DL, Stockley RA.](#) [Related Articles](#), [Links](#)
 Sputum chemotactic activity in chronic obstructive pulmonary disease: effect of alpha(1)-antitrypsin deficiency and the role of leukotriene B(4) and interleukin 8.
Thorax. 2002 Aug;57(8):709-14.
PMID: 12149532 [PubMed - indexed for MEDLINE]
- 138: [Al-Khatib SM, Granger CB, Huang Y, Lee KL, Califf RM, Simoons ML, Armstrong PW, Van de Werf F, White HD, Simes RJ, Moliterno DJ, Topol EJ, Harrington RA.](#) [Related Articles](#), [Links](#)
 Sustained ventricular arrhythmias among patients with acute coronary syndromes with no ST-segment elevation: incidence, predictors, and outcomes.
Circulation. 2002 Jul 16;106(3):309-12.
PMID: 12119245 [PubMed - indexed for MEDLINE]
- 139: [Vila S, Miravitles M, Campos F, de la Roza C, Segura R, Morell F, Vidal R.](#) [Related Articles](#), [Links](#)
 [Importance of serum interleukin-6 as a mediator of systemic inflammation in patients with alpha-1 antitrypsin deficiency]
Arch Bronconeumol. 2002 Jun;38(6):263-6. Spanish.
PMID: 12113742 [PubMed - indexed for MEDLINE]
- 140: [Richter A, O'Donnell RA, Powell RM, Sanders MW, Holgate ST, Djukanovic R, Davies DE.](#) [Related Articles](#), [Links](#)
 Autocrine ligands for the epidermal growth factor receptor mediate interleukin-8 release from bronchial epithelial cells in response to cigarette smoke.
Am J Respir Cell Mol Biol. 2002 Jul;27(1):85-90.
PMID: 12091250 [PubMed - indexed for MEDLINE]
- 141: [Zorzetto M, Bombieri C, Ferrarotti I, Medaglia S, Agostini C, Tinelli C, Malerba G, Carrabino N, Beretta A, Casali L, Pozzi E, Pignatti PF, Semenzato G, Cuccia MC, Luisetti M.](#) [Related Articles](#), [Links](#)
 Complement receptor 1 gene polymorphisms in sarcoidosis.
Am J Respir Cell Mol Biol. 2002 Jul;27(1):17-23.
PMID: 12091241 [PubMed - indexed for MEDLINE]
- 142: [Salpeter SS, Ormiston T, Salpeter E, Poole P, Cates C.](#) [Related Articles](#), [Links](#)
 Cardioselective beta-blockers for chronic obstructive pulmonary disease.
Cochrane Database Syst Rev. 2002;(2):CD003566. Review.
PMID: 12076486 [PubMed - indexed for MEDLINE]
- 143: [Birrell MA, Crispino N, Hele DJ, Patel HJ, Yacoub MH, Barnes PJ, Belvisi MG.](#) [Related Articles](#), [Links](#)
 Effect of dopamine receptor agonists on sensory nerve activity: possible therapeutic targets for the treatment of asthma and COPD.
Br J Pharmacol. 2002 Jun;136(4):620-8.
PMID: 12055141 [PubMed - indexed for MEDLINE]
- 144: [Packard KA, Wurdean RL, Arouni AJ.](#) [Related Articles](#), [Links](#)
 ACE inhibitor-induced bronchial reactivity in patients with respiratory dysfunction.
Ann Pharmacother. 2002 Jun;36(6):1058-67. Review.

PMID: 12022909 [PubMed - indexed for MEDLINE]

- 145: [Saetta M, Mariani M, Panina-Bordignon P, Turato G, Buonsanti C, Baraldo S, Bellettato CM, Papi A, Corbetta L, Zuin R, Sinigaglia F, Fabbri LM.](#) Related Articles, Lin
 Increased expression of the chemokine receptor CXCR3 and its ligand CXCL10 in peripheral airways of smokers with chronic obstructive pulmonary disease.
Am J Respir Crit Care Med. 2002 May 15;165(10):1404-9.
PMID: 12016104 [PubMed - indexed for MEDLINE]
- 146: [Goldie RG, Fernandes L, Rigby P.](#) Related Articles, Lin
 Airway nerves: detection and visualisation.
Curr Opin Pharmacol. 2002 Jun;2(3):273-7. Review.
PMID: 12020468 [PubMed - indexed for MEDLINE]
- 147: [Spina D, Page CP.](#) Related Articles, Lin
 Pharmacology of airway irritability.
Curr Opin Pharmacol. 2002 Jun;2(3):264-72. Review.
PMID: 12020467 [PubMed - indexed for MEDLINE]
- 148: [Kellerman DJ.](#) Related Articles, Lin
 P2Y(2) receptor agonists: a new class of medication targeted at improved mucociliary clearance.
Chest. 2002 May;121(5 Suppl):201S-205S. Review.
PMID: 12010852 [PubMed - indexed for MEDLINE]
- 149: [Kilfeather S.](#) Related Articles, Lin
 5-lipoxygenase inhibitors for the treatment of COPD.
Chest. 2002 May;121(5 Suppl):197S-200S. Review.
PMID: 12010851 [PubMed - indexed for MEDLINE]
- 150: [Leikauf GD, Borchers MT, Prows DR, Simpson LG.](#) Related Articles, Lin
 Mucin apoprotein expression in COPD.
Chest. 2002 May;121(5 Suppl):166S-182S. Review.
PMID: 12010847 [PubMed - indexed for MEDLINE]
- 151: [Gangur V, Birmingham NP, Thanesvorakul S.](#) Related Articles, Lin
 Chemokines in health and disease.
Vet Immunol Immunopathol. 2002 Jul;86(3-4):127-36. Review.
PMID: 12007879 [PubMed - indexed for MEDLINE]
- 152: [van Noord JA, Smeets JJ, Custers FL, Korducki L, Cornelissen PJ.](#) Related Articles, Lin
 Pharmacodynamic steady state of tiotropium in patients with chronic obstructive pulmonary disease.
Eur Respir J. 2002 Apr;19(4):639-44.
PMID: 11998992 [PubMed - indexed for MEDLINE]
- 153: [Bocchino V, Bertorelli G, Bertrand CP, Ponath PD, Newman W, Franco C, Marruchella A, Merlini S, Del Donno M, Zhuo X, Olivier D.](#) Related Articles, Lin
 Eotaxin and CCR3 are up-regulated in exacerbations of chronic bronchitis
Allergy. 2002 Jan;57(1):17-22.
PMID: 11991282 [PubMed - indexed for MEDLINE]
[Xu R, Murray M, Jagirdar J, Delgado Y, Melamed J.](#)

154:

Related Articles, Lin



Placental transmogrification of the lung is a histologic pattern frequently associated with pulmonary fibrochondromatous hamartoma.
Arch Pathol Lab Med. 2002 May;126(5):562-6.
PMID: 11958661 [PubMed - indexed for MEDLINE]

 155: Yamaya M, Sasaki H.

Related Articles, Lin



[Etiology, pathogenesis and management of senile inflammatory pulmonary diseases]
Nihon Kokyuki Gakkai Zasshi. 2002 Jan;40(1):3-10. Review. Japanese.
PMID: 11925914 [PubMed - indexed for MEDLINE]

 156: DiCamillo SJ, Carreras I, Panchenko MV, Stone PJ, Nugent MA, Foster JA, Panchenko MP.

Related Articles, Lin



Elastase-released epidermal growth factor recruits epidermal growth factor receptor and extracellular signal-regulated kinases to down-regulate tropoelastin mRNA in lung fibroblasts.
J Biol Chem. 2002 May 24;277(21):18938-46. Epub 2002 Mar 11.
PMID: 11889128 [PubMed - indexed for MEDLINE]

 157: Sabroe I, Lloyd CM, Whyte MK, Dower SK, Williams TJ, Pease JE.

Related Articles, Lin



Chemokines, innate and adaptive immunity, and respiratory disease.
Eur Respir J. 2002 Feb;19(2):350-5. Review.
PMID: 11871367 [PubMed - indexed for MEDLINE]

 158: Salpeter S, Ormiston T, Salpeter E.

Related Articles, Lin



Cardioselective beta-blockers for reversible airway disease.
Cochrane Database Syst Rev. 2002;(1):CD002992. Review. Update in: Cochrane Database Syst Rev. 2002;(4):CD002992.
PMID: 11869646 [PubMed - indexed for MEDLINE]

 159: Strange JW, Wharton J, Phillips PG, Wilkins MR.

Related Articles, Lin



Recent insights into the pathogenesis and therapeutics of pulmonary hypertension.
Clin Sci (Lond). 2002 Mar;102(3):253-68. Review.
PMID: 11869166 [PubMed - indexed for MEDLINE]

 160: Drost EM, MacNee W.

Related Articles, Lin



Potential role of IL-8, platelet-activating factor and TNF-alpha in the sequestration of neutrophils in the lung: effects on neutrophil deformability, adhesion receptor expression, and chemotaxis.
Eur J Immunol. 2002 Feb;32(2):393-403.
PMID: 11813158 [PubMed - indexed for MEDLINE]

 161: Shen N, Yao W, Zhu H.

Related Articles, Lin



[Study on the muscarinic receptor and its subtypes in patients with chronic obstructive pulmonary disease]
Zhonghua Jie He He Hu Xi Za Zhi. 2001 Apr;24(4):212-4. Chinese.
PMID: 11802965 [PubMed - indexed for MEDLINE]

 162: Liu G, Liu Z, Song Y, Yu R.

Related Articles, Lin



[Quantitative evaluation of dyspnea and the effects of M-receptor antagonist on dyspnea in patients with chronic obstructive pulmonary

disease]

Zhonghua Nei Ke Za Zhi. 2000 Dec;39(12):828-30. Chinese.

PMID: 11798546 [PubMed - indexed for MEDLINE]

- 163: [Fozard JR, Baur F, Wolber C, Collingwood SP.](#) Related Articles, Lin

Inhibition by viozan of extravasation induced in rat trachea by capsaicin is mediated exclusively by beta 2-adrenoceptors.
Naunyn Schmiedebergs Arch Pharmacol. 2001 Dec;364(6):570-2.
PMID: 11770013 [PubMed - indexed for MEDLINE]

- 164: [Newnham DM.](#) Related Articles, Lin

Asthma medications and their potential adverse effects in the elderly: recommendations for prescribing.
Drug Saf. 2001;24(14):1065-80. Review.
PMID: 11735662 [PubMed - indexed for MEDLINE]

- 165: [Zhang X, Moilanen E, Kankaanranta H.](#) Related Articles, Lin

Beclomethasone, budesonide and fluticasone propionate inhibit human neutrophil apoptosis.
Eur J Pharmacol. 2001 Nov 23;431(3):365-71.
PMID: 11730731 [PubMed - indexed for MEDLINE]

- 166: [Joos GF, Pauwels RA.](#) Related Articles, Lin

Tachykinin receptor antagonists: potential in airways diseases.
Curr Opin Pharmacol. 2001 Jun;1(3):235-41. Review.
PMID: 11712745 [PubMed - indexed for MEDLINE]

- 167: [Joos GF, De Swert KO, Pauwels RA.](#) Related Articles, Lin

Airway inflammation and tachykinins: prospects for the development of tachykinin receptor antagonists.
Eur J Pharmacol. 2001 Oct 19;429(1-3):239-50. Review.
PMID: 11698044 [PubMed - indexed for MEDLINE]

- 168: [Cazzola M, Centanni S, Boveri B, Di Marco F, Santus P, Matera MG, Allegra L.](#) Related Articles, Lin

Comparison of the bronchodilating effect of salmeterol and zafirlukast in combination with that of their use as single treatments in asthma and chronic obstructive pulmonary disease.
Respiration. 2001;68(5):452-9.
PMID: 11694805 [PubMed - indexed for MEDLINE]

- 169: [Barnes PJ.](#) Related Articles, Lin

Future Advances in COPD Therapy.
Respiration. 2001;68(5):441-8. Review.
PMID: 11694802 [PubMed - indexed for MEDLINE]

- 170: [White SR.](#) Related Articles, Lin

Trefoil peptides in airway epithelium: an important addition to the plethora of peptides.
Am J Respir Cell Mol Biol. 2001 Oct;25(4):401-4. Review. No abstract available.
PMID: 11694443 [PubMed - indexed for MEDLINE]

- 171: [Morehead RS, Shih WJ.](#) Related Articles, Lin

Tc-99m-labeled somatostatin receptor-binding peptide imaging for a

-  pulmonary nodule.
Clin Nucl Med. 2001 Nov;26(11):910-2.
PMID: 11595841 [PubMed - indexed for MEDLINE]
- 172: [Pilette C, Ouadrhiri Y, Godding V, Vaerman JP, Sibille Y.](#) Related Articles, Lin
 Lung mucosal immunity: immunoglobulin-A revisited.
Eur Respir J. 2001 Sep;18(3):571-88. Review.
PMID: 11589357 [PubMed - indexed for MEDLINE]
- 173: [Wu-Wong JR.](#) Related Articles, Lin
 Sitaxsentan (ICOS-Texas Biotechnology).
Curr Opin Investig Drugs. 2001 Apr;2(4):531-6. Review.
PMID: 11566012 [PubMed - indexed for MEDLINE]
- 174: [Denizot Y, Desplat V, Drouet M, Bertin F, Melloni B.](#) Related Articles, Lin
 Is there a role of platelet-activating factor in human lung cancer?
Lung Cancer. 2001 Aug-Sep;33(2-3):195-202.
PMID: 11551414 [PubMed - indexed for MEDLINE]
- 175: [Dentener MA, Creutzberg EC, Schols AM, Mantovani A, van't Veer C, Buurman WA, Wouters EF.](#) Related Articles, Lin
 Systemic anti-inflammatory mediators in COPD: increase in soluble interleukin 1 receptor II during treatment of exacerbations.
Thorax. 2001 Sep;56(9):721-6.
PMID: 11514694 [PubMed - indexed for MEDLINE]
- 176: [Ammit AJ, Panettieri RA Jr.](#) Related Articles, Lin
 Invited review: the circle of life: cell cycle regulation in airway smooth muscle.
J Appl Physiol. 2001 Sep;91(3):1431-7. Review.
PMID: 11509545 [PubMed - indexed for MEDLINE]
- 177: [Owen C.](#) Related Articles, Lin
 Chemokine receptors in airway disease: which receptors to target?
Pulm Pharmacol Ther. 2001;14(3):193-202. Review.
PMID: 11448146 [PubMed - indexed for MEDLINE]
- 178: [Cocks TM, Moffatt JD.](#) Related Articles, Lin
 Protease-activated receptor-2 (PAR2) in the airways.
Pulm Pharmacol Ther. 2001;14(3):183-91. Review.
PMID: 11448145 [PubMed - indexed for MEDLINE]
- 179: [Bullock GR, Steyaert I, Bilbe G, Carey RM, Kips J, De Paepe B, Pauwels R, Praet M, Siragy HM, de Gasparo M.](#) Related Articles, Lin
 Distribution of type-1 and type-2 angiotensin receptors in the normal human lung and in lungs from patients with chronic obstructive pulmonary disease.
Histochem Cell Biol. 2001 Feb;115(2):117-24.
PMID: 11444146 [PubMed - indexed for MEDLINE]
- 180: [Shuto T, Xu H, Wang B, Han J, Kai H, Gu XX, Murphy TF, Lim DJ, Li JD.](#) Related Articles, Lin
 Activation of NF-kappa B by nontypeable *Hemophilus influenzae* is mediated by toll-like receptor 2-TAK1-dependent NIK-IKK alpha /beta-I kappa B alpha and MKK3/6-p38 MAP kinase signaling pathways in

epithelial cells.

Proc Natl Acad Sci U S A. 2001 Jul 17;98(15):8774-9. Epub 2001 Jul 3.
PMID: 11438700 [PubMed - indexed for MEDLINE]

- 181: Di Stefano A, Capelli A, Lusuardi M, Caramori G, Balbo P, Ioli F, Sacco S, Gnemmi I, Brun P, Adcock IM, Balbi B, Barnes PJ, Chung KF, Donner CF. Related Articles, Lin Decreased T lymphocyte infiltration in bronchial biopsies of subjects with severe chronic obstructive pulmonary disease. Clin Exp Allergy. 2001 Jun;31(6):893-902. PMID: 11422154 [PubMed - indexed for MEDLINE]
- 182: Salpeter S, Ormiston T, Salpeter E. Related Articles, Lin Cardioselective beta-blocker use in patients with reversible airway disease Cochrane Database Syst Rev. 2001;(2):CD002992. Review. Update in: Cochrane Database Syst Rev. 2002;(1):CD002992. PMID: 11406056 [PubMed - indexed for MEDLINE]
- 183: Panina-Bordignon P, Papi A, Mariani M, Di Lucia P, Casoni G, Bellettato C, Buonsanti C, Miotto D, Mapp C, Villa A, Arrigoni G, Fabbri LM, Sinigaglia F. Related Articles, Lin The C-C chemokine receptors CCR4 and CCR8 identify airway T cells of allergen-challenged atopic asthmatics. J Clin Invest. 2001 Jun;107(11):1357-64. PMID: 11390417 [PubMed - indexed for MEDLINE]
- 184: On LS, Boonyongsunchai P, Webb S, Davies L, Calverley PM, Costello RW. Related Articles, Lin Function of pulmonary neuronal M(2) muscarinic receptors in stable chronic obstructive pulmonary disease. Am J Respir Crit Care Med. 2001 May;163(6):1320-5. PMID: 11371395 [PubMed - indexed for MEDLINE]
- 185: Lorch G, Hillier A, Kwochka KW, Saville WJ, Kohn CW, LeRoy BE. Related Articles, Lin Comparison of immediate intradermal test reactivity with serum IgE quantitation by use of a radioallergosorbent test and two ELISA in horses with and without atopy. J Am Vet Med Assoc. 2001 Apr 15;218(8):1314-22. PMID: 11330620 [PubMed - indexed for MEDLINE]
- 186: McFarlane SM, Jupp OJ, Cobban HJ, Hunter I, Anderson HM, Vandenabeele P, Nixon GF, MacEwan DJ. Related Articles, Lin Stimulation of stress-activated but not mitogen-activated protein kinases by tumour necrosis factor receptor subtypes in airway smooth muscle. Biochem Pharmacol. 2001 Mar 15;61(6):749-59. PMID: 11266661 [PubMed - indexed for MEDLINE]
- 187: Barnes PJ. Related Articles, Lin Potential novel therapies for chronic obstructive pulmonary disease. Novartis Found Symp. 2001;234:255-67; discussion 267-72. Review. PMID: 11199100 [PubMed - indexed for MEDLINE]
- 188: Takabatake N, Nakamura H, Inoue S, Terashita K, Yuki H, Kato S, Yasumura S, Tomoike H. Related Articles, Lin Circulating levels of soluble Fas ligand and soluble Fas in patients with chronic obstructive pulmonary disease.

Respir Med. 2000 Dec;94(12):1215-20.
PMID: 11192958 [PubMed - indexed for MEDLINE]

- 189: [Pilette C, Godding V, Kiss R, Delos M, Verbeken E, Decaestecker C, De Paepe K, Vaerman JP, Decramer M, Sibille Y.](#) Related Articles, Lin

 Reduced epithelial expression of secretory component in small airways correlates with airflow obstruction in chronic obstructive pulmonary disease.

Am J Respir Crit Care Med. 2001 Jan;163(1):185-94.
PMID: 11208645 [PubMed - indexed for MEDLINE]

- 190: [George CF.](#) Related Articles, Lin

 Perspectives on the management of insomnia in patients with chronic respiratory disorders.

Sleep. 2000 Feb 1;23 Suppl 1:S31-5; discussion S36-8. Review.
PMID: 10755806 [PubMed - indexed for MEDLINE]

- 191: [Takeyama K, Jung B, Shim JJ, Burgel PR, Dao-Pick T, Ueki IF, Protin U, Kroschel P, Nadel JA.](#) Related Articles, Lin

 Activation of epidermal growth factor receptors is responsible for mucin synthesis induced by cigarette smoke.

Am J Physiol Lung Cell Mol Physiol. 2001 Jan;280(1):L165-72.
PMID: 11133506 [PubMed - indexed for MEDLINE]

- 192: [Kasahara Y, Tuder RM, Taraseviciene-Stewart L, Le Cras TD, Abman S, Hirth PK, Waltenberger J, Voelkel NF.](#) Related Articles, Lin

 Inhibition of VEGF receptors causes lung cell apoptosis and emphysema.

J Clin Invest. 2000 Dec;106(11):1311-9.
PMID: 11104784 [PubMed - indexed for MEDLINE]

- 193: [Shapiro SD.](#) Related Articles, Lin

 Vascular atrophy and VEGFR-2 signaling: old theories of pulmonary emphysema meet new data.

J Clin Invest. 2000 Dec;106(11):1309-10. No abstract available.
PMID: 11104783 [PubMed - indexed for MEDLINE]

- 194: [Rogers DF.](#) Related Articles, Lin

 Mucus pathophysiology in COPD: differences to asthma, and pharmacotherapy.

Monaldi Arch Chest Dis. 2000 Aug;55(4):324-32. Review.
PMID: 11057087 [PubMed - indexed for MEDLINE]

- 195: [Underwood DC, Osborn RR, Bochnowicz S, Webb EF, Rieman DJ, Lee JC, Romanic AM, Adams JL, Hay DW, Griswold DE.](#) Related Articles, Lin

 SB 239063, a p38 MAPK inhibitor, reduces neutrophilia, inflammatory cytokines, MMP-9, and fibrosis in lung.

Am J Physiol Lung Cell Mol Physiol. 2000 Nov;279(5):L895-902.
PMID: 11053025 [PubMed - indexed for MEDLINE]

- 196: [Scuri M, Forteza R, Lauredo I, Sabater JR, Botvinnikova Y, Allegra L, Abraham WM.](#) Related Articles, Lin

 Inhaled porcine pancreatic elastase causes bronchoconstriction via a bradykinin-mediated mechanism.

J Appl Physiol. 2000 Oct;89(4):1397-402.
PMID: 11007574 [PubMed - indexed for MEDLINE]

Ishii T, Matsuse T, Teramoto S, Matsui H, Miyao M, Hosoi T,

- 197: [Takahashi H, Fukuchi Y, Ouchi Y.](#) Related Articles, Lin
Neither IL-1beta, IL-1 receptor antagonist, nor TNF-alpha polymorphism are associated with susceptibility to COPD.
Respir Med. 2000 Sep;94(9):847-51.
PMID: 11001075 [PubMed - indexed for MEDLINE]
- 198: [Pozzi R.](#) Related Articles, Lin
[True and presumed contraindications of beta blockers. Peripheral vascular disease, diabetes mellitus, chronic bronchopneumopathy]
Ital Heart J Suppl. 2000 Aug;1(8):1031-7. Review. Italian.
PMID: 10993010 [PubMed - indexed for MEDLINE]
- 199: [Lalloo UG, Bateman ED, Feldman C, Bardin PG, Plit M, Irusen EM, O'Brien J.](#) Related Articles, Lin
Guideline for the management of chronic asthma in adults--2000 update.
South African Pulmonology Society Adult Asthma Working Group.
S Afr Med J. 2000 May;90(5 Pt 2):540-1, 544-52.
PMID: 10901829 [PubMed - indexed for MEDLINE]
- 200: [Littner MR, Ilowite JS, Tashkin DP, Friedman M, Serby CW, Menjoge SS, Witek TJ Jr.](#) Related Articles, Lin
Long-acting bronchodilation with once-daily dosing of tiotropium (Spiriva) in stable chronic obstructive pulmonary disease.
Am J Respir Crit Care Med. 2000 Apr;161(4 Pt 1):1136-42.
PMID: 10764302 [PubMed - indexed for MEDLINE]
- 201: [Ladislas R.](#) Related Articles, Lin
Cellular and molecular mechanisms of aging and age related diseases.
Pathol Oncol Res. 2000;6(1):3-9. Review.
PMID: 10749581 [PubMed - indexed for MEDLINE]
- 202: [de Boer WI, Sont JK, van Schadewijk A, Stolk J, van Krieken JH, Hiemstra PS.](#) Related Articles, Lin
Monocyte chemoattractant protein 1, interleukin 8, and chronic airways inflammation in COPD.
J Pathol. 2000 Apr;190(5):619-26.
PMID: 10727989 [PubMed - indexed for MEDLINE]
- 203: [Creutzberg EC, Schols AM, Weling-Scheepers CA, Buurman WA, Wouters EF.](#) Related Articles, Lin
Characterization of nonresponse to high caloric oral nutritional therapy in depleted patients with chronic obstructive pulmonary disease.
Am J Respir Crit Care Med. 2000 Mar;161(3 Pt 1):745-52.
PMID: 10712317 [PubMed - indexed for MEDLINE]
- 204: [Crooks SW, Bayley DL, Hill SL, Stockley RA.](#) Related Articles, Lin
Bronchial inflammation in acute bacterial exacerbations of chronic bronchitis: the role of leukotriene B4.
Eur Respir J. 2000 Feb;15(2):274-80.
PMID: 10706491 [PubMed - indexed for MEDLINE]
- 205: [Akers IA, Parsons M, Hill MR, Hollenberg MD, Sanjar S, Laurent GJ, McAnulty RJ.](#) Related Articles, Lin
Mast cell tryptase stimulates human lung fibroblast proliferation via protease-activated receptor-2.

Am J Physiol Lung Cell Mol Physiol. 2000 Jan;278(1):L193-201.
PMID: 10645907 [PubMed - indexed for MEDLINE]

- 206: [Lee E, Lindo T, Jackson N, Meng-Choong L, Reynolds P, Hill A, Haswell M, Jackson S, Kilfeather S.](#) Related Articles, Lin

 Reversal of human neutrophil survival by leukotriene B(4) receptor blockade and 5-lipoxygenase and 5-lipoxygenase activating protein inhibitors.

Am J Respir Crit Care Med. 1999 Dec;160(6):2079-85.
PMID: 10588632 [PubMed - indexed for MEDLINE]

- 207: [Barnes PJ.](#) Related Articles, Lin

 Novel approaches and targets for treatment of chronic obstructive pulmonary disease.

Am J Respir Crit Care Med. 1999 Nov;160(5 Pt 2):S72-9. Review.
PMID: 10556174 [PubMed - indexed for MEDLINE]

- 208: [Rutgers SR, Koeter GH, Van Der Mark TW, Postma DS.](#) Related Articles, Lin

 Protective effect of oral terfenadine and not inhaled ipratropium on adenosine 5'-monophosphate-induced bronchoconstriction in patients with COPD.

Clin Exp Allergy. 1999 Sep;29(9):1287-92.
PMID: 10469040 [PubMed - indexed for MEDLINE]

- 209: [Busse WW, McGill KA, Horwitz RJ.](#) Related Articles, Lin

 Leukotriene pathway inhibitors in asthma and chronic obstructive pulmonary disease.

Clin Exp Allergy. 1999 Jun;29 Suppl 2:110-5. Review.
PMID: 10421833 [PubMed - indexed for MEDLINE]

- 210: [Eglen RM, Choppin A, Dillon MP, Hegde S.](#) Related Articles, Lin

 Muscarinic receptor ligands and their therapeutic potential.

Curr Opin Chem Biol. 1999 Aug;3(4):426-32. Review.
PMID: 10419852 [PubMed - indexed for MEDLINE]

- 211: [van Suylen RJ, Wouters EF, Pennings HJ, Cheriex EC, van Pol PE, Ambergen AW, Vermelis AM, Daemen MJ.](#) Related Articles, Lin

 The DD genotype of the angiotensin converting enzyme gene is negatively associated with right ventricular hypertrophy in male patients with chronic obstructive pulmonary disease.

Am J Respir Crit Care Med. 1999 Jun;159(6):1791-5.
PMID: 10351920 [PubMed - indexed for MEDLINE]

- 212: [Zheng CH, Ahmed K, Rikitomi N, Martinez G, Nagatake T.](#) Related Articles, Lin

 The effects of S-carboxymethylcysteine and N-acetylcysteine on the adherence of Moraxella catarrhalis to human pharyngeal epithelial cells.

Microbiol Immunol. 1999;43(2):107-13.
PMID: 10229264 [PubMed - indexed for MEDLINE]

- 213: [Takabatake N, Nakamura H, Abe S, Hino T, Saito H, Yuki H, Kato S, Tomoike H.](#) Related Articles, Lin

 Circulating leptin in patients with chronic obstructive pulmonary disease.

Am J Respir Crit Care Med. 1999 Apr;159(4 Pt 1):1215-9.
PMID: 10194168 [PubMed - indexed for MEDLINE]

- 214: [Hay DW.](#) Related Articles, Lin
Putative mediator role of endothelin-1 in asthma and other lung diseases.
Clin Exp Pharmacol Physiol. 1999 Feb;26(2):168-71. Review.
PMID: 10065341 [PubMed - indexed for MEDLINE]
- 215: [Moller S, Uddman R, Granstrom B, Edvinsson L.](#) Related Articles, Lin
Altered ratio of endothelin ET(A)- and ET(B) receptor mRNA in bronchial biopsies from patients with asthma and chronic airway obstruction.
Eur J Pharmacol. 1999 Jan 15;365(1):R1-3.
PMID: 9988131 [PubMed - indexed for MEDLINE]
- 216: [Korn SH, Thunnissen FB, Wesseling GJ, Arends JW, Wouters EF.](#) Related Articles, Lin
Glucocorticoid receptor mRNA levels in bronchial epithelial cells of patients with COPD: influence of glucocorticoids.
Respir Med. 1998 Sep;92(9):1102-9.
PMID: 9926163 [PubMed - indexed for MEDLINE]
- 217: [Yasuda N, Gotoh K, Minatoguchi S, Asano K, Nishigaki K, Nomura M, Ohno A, Watanabe M, Sano H, Kumada H, Sawa T, Fujiwara H.](#) Related Articles, Lin
An increase of soluble Fas, an inhibitor of apoptosis, associated with progression of COPD.
Respir Med. 1998 Aug;92(8):993-9.
PMID: 9893764 [PubMed - indexed for MEDLINE]
- 218: [Torneke K, Ingvast Larsson C, Appelgren LE.](#) Related Articles, Lin
A comparison between clenbuterol, salbutamol and terbutaline in relation to receptor binding and in vitro relaxation of equine tracheal muscle.
J Vet Pharmacol Ther. 1998 Oct;21(5):388-92.
PMID: 9811440 [PubMed - indexed for MEDLINE]
- 219: [Kobashi Y, Tanabe J, Fujita K, Karino T, Yano T, Nakamura J, Okimoto N, Matsushima T, Soejima R.](#) Related Articles, Lin
[Clinical analysis of patients with nosocomial pneumonia during mechanical ventilation (so-called ventilator-associated pneumonia)]
Kansenshogaku Zasshi. 1998 Sep;72(9):897-904. Japanese.
PMID: 9796188 [PubMed - indexed for MEDLINE]
- 220: [Verheggen MM, Adriaansen-Soeting PW, Berrevoets CA, van Hal PT, Brinkmann AO, Hoogsteden HC, Versnel MA.](#) Related Articles, Lin
Glucocorticoid receptor expression in human bronchial epithelial cells: effects of smoking and COPD.
Mediators Inflamm. 1998;7(4):275-81.
PMID: 9792338 [PubMed - indexed for MEDLINE]
- 221: [Peng W, Michael JR, Hoidal JR, Karwande SV, Farrukh IS.](#) Related Articles, Lin
ET-1 modulates KCa-channel activity and arterial tension in normoxic and hypoxic human pulmonary vasculature.
Am J Physiol. 1998 Oct;275(4 Pt 1):L729-39.
PMID: 9755105 [PubMed - indexed for MEDLINE]
- 222: [Domenighetti G, Leuenberger P, Feihl F.](#) Related Articles, Lin
Haemodynamic effects of ketanserin either alone or with oxygen in COPD patients with secondary pulmonary hypertension.
Monaldi Arch Chest Dis. 1997 Oct;52(5):429-33.

PMID: 9510660 [PubMed - indexed for MEDLINE]

- 223: [Yuan Y, Wang Z, Luo Y, He T, Zeng J.](#) Related Articles, Lin
 [Cetirizine improves the resistance of airway and pulmonary function in patients with asthma]
Hua Xi Yi Ke Da Xue Xue Bao. 1996 Dec;27(4):411-4. Chinese.
PMID: 9389015 [PubMed - indexed for MEDLINE]
- 224: [Dowlati A, Loo M, Bury T, Fillet G, Beguin Y.](#) Related Articles, Lin
 Soluble and cell-associated transferrin receptor in lung cancer.
Br J Cancer. 1997;75(12):1802-6.
PMID: 9192985 [PubMed - indexed for MEDLINE]
- 225: [Kiely DG, Cargill RI, Wheeldon NM, Coutie WJ, Lipworth BJ.](#) Related Articles, Lin
 Haemodynamic and endocrine effects of type 1 angiotensin II receptor blockade in patients with hypoxaemic cor pulmonale.
Cardiovasc Res. 1997 Jan;33(1):201-8.
PMID: 9059545 [PubMed - indexed for MEDLINE]
- 226: [Keicho N, Elliott WM, Hogg JC, Hayashi S.](#) Related Articles, Lin
 Adenovirus E1A gene dysregulates ICAM-1 expression in transformed pulmonary epithelial cells.
Am J Respir Cell Mol Biol. 1997 Jan;16(1):23-30.
PMID: 8998075 [PubMed - indexed for MEDLINE]
- 227: [Groeben H, Brown RH.](#) Related Articles, Lin
 Ipratropium decreases airway size in dogs by preferential M2 muscarinic receptor blockade in vivo.
Anesthesiology. 1996 Oct;85(4):867-73.
PMID: 8873558 [PubMed - indexed for MEDLINE]
- 228: [Fairbairn SM, Marr KA, Lees P, Cunningham FM, Page CP.](#) Related Articles, Lin
 Effects of platelet activating factor on the distribution of radiolabelled leucocytes and platelets in normal horses and asymptomatic horses with chronic obstructive pulmonary disease.
Res Vet Sci. 1996 Sep;61(2):107-13.
PMID: 8880978 [PubMed - indexed for MEDLINE]
- 229: [Schols AM, Buurman WA, Staal van den Brekel AJ, Dentener MA, Wouters EF.](#) Related Articles, Lin
 Evidence for a relation between metabolic derangements and increased levels of inflammatory mediators in a subgroup of patients with chronic obstructive pulmonary disease.
Thorax. 1996 Aug;51(8):819-24.
PMID: 8795671 [PubMed - indexed for MEDLINE]
- 230: [Bostrom H, Willets K, Pekny M, Leveen P, Lindahl P, Hedstrand H, Pekna M, Hellstrom M, Gebre-Medhin S, Schalling M, Nilsson M, Kurland S, Tornell J, Heath JK, Betsholtz C.](#) Related Articles, Lin
 PDGF-A signaling is a critical event in lung alveolar myofibroblast development and alveogenesis.
Cell. 1996 Jun 14;85(6):863-73.
PMID: 8681381 [PubMed - indexed for MEDLINE]
- 231: [Marr KA, Fairbairn SM, Page CP, Lees P, Cunningham FM.](#) Related Articles, Lin

-  A study of the effect of a platelet activating factor (PAF) receptor antagonist on antigen challenge of horses with chronic obstructive pulmonary disease.
J Vet Pharmacol Ther. 1996 Jun;19(3):233-7.
PMID: 8803882 [PubMed - indexed for MEDLINE]

232: [Sieffkin AD.](#) [Related Articles](#), [Links](#)

-  Optimal pharmacologic treatment of the critically ill patient with obstructive airways disease.
Am J Med. 1996 Jan 29;100(1A):54S-61S. Review.
PMID: 8610719 [PubMed - indexed for MEDLINE]

233: [Shioya T, Kagaya M, Sano M, Itaba M, Shindo T, Miura M.](#) [Related Articles](#), [Links](#)

-  Antimuscarinic effect of tiquizium bromide in vitro and in vivo.
Eur J Clin Pharmacol. 1996;50(5):375-80.
PMID: 8839659 [PubMed - indexed for MEDLINE]

234: [Bai TR, Zhou D, Weir T, Walker B, Hegele R, Hayashi S, McKay K, Bondy GP, Fong T.](#) [Related Articles](#), [Links](#)

-  Substance P (NK1)- and neurokinin A (NK2)-receptor gene expression in inflammatory airway diseases.
Am J Physiol. 1995 Sep;269(3 Pt 1):L309-17.
PMID: 7573463 [PubMed - indexed for MEDLINE]

235: [Aubert JD, Hayashi S, Hards J, Bai TR, Pare PD, Hogg JC.](#) [Related Articles](#), [Links](#)

-  Platelet-derived growth factor and its receptor in lungs from patients with asthma and chronic airflow obstruction.
Am J Physiol. 1994 Jun;266(6 Pt 1):L655-63.
PMID: 8023954 [PubMed - indexed for MEDLINE]

236: [Leader WG, Wolf KM, Cooper TM, Chandler MH.](#) [Related Articles](#), [Links](#)

-  Symptomatology, pulmonary function and response, and T lymphocyte beta 2-receptors during smoking cessation in patients with chronic obstructive pulmonary disease.
Pharmacotherapy. 1994 Mar-Apr;14(2):162-72.
PMID: 8197034 [PubMed - indexed for MEDLINE]

237: [Stockley RA, Grant RA, Llewellyn-Jones CG, Hill SL, Burnett D.](#) [Related Articles](#), [Links](#)

-  Neutrophil formyl-peptide receptors. Relationship to peptide-induced responses and emphysema.
Am J Respir Crit Care Med. 1994 Feb;149(2 Pt 1):464-8.
PMID: 8306047 [PubMed - indexed for MEDLINE]

238: [Bachmann KA, Sullivan TJ, Jauregui L, Reese J, Miller K, Levine L.](#) [Related Articles](#), [Links](#)

-  Drug interactions of H2-receptor antagonists.
Scand J Gastroenterol Suppl. 1994;206:14-9.
PMID: 7863246 [PubMed - indexed for MEDLINE]

239: [Coskey LA, Bitting J, Roth MD.](#) [Related Articles](#), [Links](#)

-  Inhibition of natural killer cell activity by therapeutic levels of theophylline.
Am J Respir Cell Mol Biol. 1993 Dec;9(6):659-65.
PMID: 8257597 [PubMed - indexed for MEDLINE]

- 240: [Yedinak KC.](#) [Related Articles](#), [Lir](#)
Formulary considerations in selection of beta-blockers.
Pharmacoeconomics. 1993 Aug;4(2):104-21. Review.
PMID: 10150154 [PubMed - indexed for MEDLINE]
- 241: [Tetley TD.](#) [Related Articles](#), [Lir](#)
New perspectives on basic mechanisms in lung disease. 6. Proteinase imbalance: its role in lung disease.
Thorax. 1993 May;48(5):560-5. Review.
PMID: 8322246 [PubMed - indexed for MEDLINE]
- 242: [Ukena D, Wehinger C, Engelstatter R, Steinijans V, Sybrecht GW.](#) [Related Articles](#), [Lir](#)
The muscarinic M1-receptor-selective antagonist, telenzepine, had no bronchodilatory effects in COPD patients.
Eur Respir J. 1993 Mar;6(3):378-82.
PMID: 8472828 [PubMed - indexed for MEDLINE]
- 243: [Bai TR, Zhou D, Aubert JD, Lizée G, Hayashi S, Bondy GP.](#) [Related Articles](#), [Lir](#)
Expression of beta 2-adrenergic receptor mRNA in peripheral lung in asthma and chronic obstructive pulmonary disease.
Am J Respir Cell Mol Biol. 1993 Mar;8(3):325-33.
PMID: 7680566 [PubMed - indexed for MEDLINE]
- 244: [Shih WJ, Lai YL, Coupal JJ, Simmons G.](#) [Related Articles](#), [Lir](#)
[123I]HIPDM pulmonary imaging demonstrates elastase-induced pulmonary emphysema.
Lung. 1993;171(1):31-41.
PMID: 8416418 [PubMed - indexed for MEDLINE]
- 245: [Beusenberg FD, Van Amsterdam JG, Hoogsteen HC, Hekking PR, Brouwers JW, Schermers HP, Bonta IL.](#) [Related Articles](#), [Lir](#)
Stimulation of cyclic AMP production in human alveolar macrophages induced by inflammatory mediators and beta-sympathicomimetics.
Eur J Pharmacol. 1992 May 1;228(1):57-62.
PMID: 1356815 [PubMed - indexed for MEDLINE]
- 246: [Cazzola M, Guidetti E, Sepe J, Assogna G, Lucchetti G, Santangelo G, D'Amato G.](#) [Related Articles](#), [Lir](#)
Acute respiratory and cardiovascular effects of inhaled ketanserin in chronic obstructive pulmonary disease. A comparative study with intravenously administered ketanserin.
Chest. 1990 Apr;97(4):901-5.
PMID: 2182300 [PubMed - indexed for MEDLINE]
- 247: [Vertes K, Debreczeni LA.](#) [Related Articles](#), [Lir](#)
Acid-base balance and cardiac index in SO₂-bronchitic, papaine-emphysematous and paraquat-fibrotic rats after isoproterenol treatment.
Acta Physiol Hung. 1990;75(1):45-52.
PMID: 2339607 [PubMed - indexed for MEDLINE]
- 248: [Freund G, Ballinger WE Jr.](#) [Related Articles](#), [Lir](#)
Loss of muscarinic cholinergic receptors from the temporal cortex of alcohol abusers.
Metab Brain Dis. 1989 Jun;4(2):121-41.

PMID: 2547145 [PubMed - indexed for MEDLINE]

249: [Freund G, Ballinger WE Jr.](#)

[Related Articles](#), [Links](#)

 Neuroreceptor changes in the putamen of alcohol abusers.
Alcohol Clin Exp Res. 1989 Apr;13(2):213-8.
PMID: 2543230 [PubMed - indexed for MEDLINE]

250: [Cazzola M, Matera MG, D'Amato G, De Santis D, Maione S, Lisa M, Cenicola ML, Marmo E.](#) [Related Articles](#), [Links](#)

 Evidence of muscarinic receptor subtypes in airway smooth muscle of normal volunteers and of chronic obstructive pulmonary disease patients.
Int J Clin Pharmacol Res. 1989;9(1):65-70.
PMID: 2707927 [PubMed - indexed for MEDLINE]

251: [Freund G, Ballinger WE Jr.](#)

[Related Articles](#), [Links](#)

 Decrease of benzodiazepine receptors in frontal cortex of alcoholics.
Alcohol. 1988 Jul-Aug;5(4):275-82.
PMID: 2852495 [PubMed - indexed for MEDLINE]

252: [Dorow P.](#)

[Related Articles](#), [Links](#)

 [Effect of different beta-receptor blockers on the respiratory function of patients with chronic obstructive pulmonary disease and arterial hypertension]
Arzneimittelforschung. 1987 Dec;37(12):1370-2. German.
PMID: 2896506 [PubMed - indexed for MEDLINE]

253: [Cazzola M, D'Amato G, Lobefalo G, Guillaro B, Sepe J, Assogna G, Pietroletti R, Lauria D.](#)

[Related Articles](#), [Links](#)

 Ketanserin, a new blocking agent of serotonin S₂-receptors. Respiratory functional effects in chronic obstruction of the airways.
Chest. 1987 Nov;92(5):863-6.
PMID: 3311648 [PubMed - indexed for MEDLINE]

254: [Rigaud D, Chastre J, Accary JP, Bonfils S, Gibert C, Hance AJ.](#)

[Related Articles](#), [Links](#)

 Intragastric pH profile during acute respiratory failure in patients with chronic obstructive pulmonary disease. Effect of ranitidine and enteral feeding.
Chest. 1986 Jul;90(1):58-63.
PMID: 3087709 [PubMed - indexed for MEDLINE]

255: [Delpierre S, Fornaris M, Payan MJ.](#)

[Related Articles](#), [Links](#)

 Lung reflexes in anaesthetized rabbits with elastase-induced emphysema.
Bull Eur Physiopathol Respir. 1985 Jul-Aug;21(4):375-80.
PMID: 3849976 [PubMed - indexed for MEDLINE]

256: [McGowan SE, Arbeit RD, Stone PJ, Snider GL.](#)

[Related Articles](#), [Links](#)

 A comparison of the binding and fate of internalized neutrophil elastase in human monocytes and alveolar macrophages.
Am Rev Respir Dis. 1983 Oct;128(4):688-94.
PMID: 6312857 [PubMed - indexed for MEDLINE]

257: [Campbell EJ, Wald MS.](#)

[Related Articles](#), [Links](#)

 Hypoxic injury to human alveolar macrophages accelerates release of previously bound neutrophil elastase. Implications for lung connective

tissue injury including pulmonary emphysema.
Am Rev Respir Dis. 1983 May;127(5):631-5.
PMID: 6342481 [PubMed - indexed for MEDLINE]

□ 258: [Jenne JW, Ridley DJ, Marcucci RA, Druz WS, Rook JC.](#) Related Articles, Lin

□ Objective and subjective tremor responses to oral beta 2 agents on first exposure. A comparison of metaproterenol and terbutaline.
Am Rev Respir Dis. 1982 Oct;126(4):607-10.
PMID: 6751176 [PubMed - indexed for MEDLINE]

□ 259: [Trauth HA.](#) Related Articles, Lin

□ [Antihypertensive treatment with beta receptor blockers and obstructive ventilatory disorder (author's transl)]
MMW Munch Med Wochenschr. 1981 Jul 3;123(27):1119-21. German.
PMID: 6114427 [PubMed - indexed for MEDLINE]

□ 260: [Klein WW.](#) Related Articles, Lin

□ [Comparative studies on the effect of various -receptor blockaders on pulmonary function in healthy subjects and patients with obstructive respiratory tract disorders]
Wien Z Inn Med. 1971;52(10):507-11. German. No abstract available.
PMID: 4399930 [PubMed - indexed for MEDLINE]

□ 261: [Hamm J, Hunekohl E, Schmidt A.](#) Related Articles, Lin

□ [The effect of an adrenergic beta receptor blockader (Ko 592) on respiration]
Klin Wochenschr. 1970 Apr 15;48(8):457-64. German. No abstract available.
PMID: 4397467 [PubMed - indexed for MEDLINE]

□ 262: [Meier J, Lydtin H, Zollner N.](#) Related Articles, Lin

□ [On the effect of adrenergic beta-receptor-blocking agents on the ventilatory function in obstructive lung diseases]
Dtsch Med Wochenschr. 1966 Jan 28;91(4):145-7. German. No abstract available.
PMID: 5902649 [PubMed - indexed for MEDLINE]

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Spatial approximation between two residues in the mid-region of secretin and the amino terminus of its receptor. Incorporation of seven sets of such constraints into a three-dimensional model of the agonist-bound secretin receptor.

J Biol Chem. 2003 Nov 28;278(48):48300-12. Epub 2003 Sep 18.

PMID: 14500709 [PubMed - indexed for MEDLINE]

2: [Mayo KE, Miller LJ, Bataille D, Dalle S, Goke B, Thorens B, Drucker DJ.](#)

Related Articles, Lin

International Union of Pharmacology. XXXV. The glucagon receptor family *Pharmacol Rev.* 2003 Mar;55(1):167-94. Review.

PMID: 12615957 [PubMed - indexed for MEDLINE]

3: [Dong M, Miller LJ.](#)

Related Articles, Lin

Molecular pharmacology of the secretin receptor.

Receptors Channels. 2002;8(3-4):189-200. Review.

PMID: 12529936 [PubMed - indexed for MEDLINE]

4: [Joost P, Methner A.](#)

Related Articles, Lin

Phylogenetic analysis of 277 human G-protein-coupled receptors as a tool for the prediction of orphan receptor ligands.

Genome Biol. 2002 Oct 17;3(11):RESEARCH0063. Epub 2002 Oct 17.

PMID: 12429062 [PubMed - indexed for MEDLINE]

5: [Unson CG, Wu CR, Jiang Y, Yoo B, Cheung C, Sakmar TP, Merrifield RB.](#)

Related Articles, Lin

Roles of specific extracellular domains of the glucagon receptor in ligand binding and signaling.

Biochemistry. 2002 Oct 1;41(39):11795-803.

PMID: 12269822 [PubMed - indexed for MEDLINE]

6: [Waelbroeck M, Perret J, Vertongen P, Van Craenenbroeck M, Robberecht P.](#)

Related Articles, Lin

Identification of secretin, vasoactive intestinal peptide and glucagon binding sites: from chimaeric receptors to point mutations.

Biochem Soc Trans. 2002 Aug;30(4):437-41. Review.

PMID: 12196110 [PubMed - indexed for MEDLINE]

7: [Perret J, Van Craenenbroeck M, Langer I, Vertongen P, Gregoire F, Robberecht P, Waelbroeck M.](#)

Related Articles, Lin

Mutational analysis of the glucagon receptor: similarities with the vasoactive

 intestinal peptide (VIP)/pituitary adenylate cyclase-activating peptide (PACAP)/secretin receptors for recognition of the ligand's third residue.
Biochem J. 2002 Mar 1;362(Pt 2):389-94.
PMID: 11853547 [PubMed - indexed for MEDLINE]

8: [West AP Jr, Llamas LL, Snow PM, Benzer S, Bjorkman PJ.](#) Related Articles, Lin

 Crystal structure of the ectodomain of Methuselah, a Drosophila G protein-coupled receptor associated with extended lifespan.
Proc Natl Acad Sci U S A. 2001 Mar 27;98(7):3744-9. Epub 2001 Mar 13.
PMID: 11274391 [PubMed - indexed for MEDLINE]

9: [Dong M, Wang Y, Miller LJ.](#) Related Articles, Lin

 Dual contacts between peptide agonist ligands and the secretin receptor directly established by photoaffinity labeling.
Ann N Y Acad Sci. 2000;921:381-6.
PMID: 11193860 [PubMed - indexed for MEDLINE]

10: [Park CG, Ganguli SC, Pinon DI, Hadac EM, Miller LJ.](#) Related Articles, Lin

 Cross-chimeric analysis of selectivity of secretin and VPAC(1) receptor activation.
J Pharmacol Exp Ther. 2000 Nov;295(2):682-8.
PMID: 11046106 [PubMed - indexed for MEDLINE]

11: [Dong M, Asmann YW, Zang M, Pinon DI, Miller LJ.](#) Related Articles, Lin

 Identification of two pairs of spatially approximated residues within the carboxyl terminus of secretin and its receptor.
J Biol Chem. 2000 Aug 25;275(34):26032-9.
PMID: 10859300 [PubMed - indexed for MEDLINE]

12: [Dong M, Wang Y, Hadac EM, Pinon DI, Holicky E, Miller LJ.](#) Related Articles, Lin

 Identification of an interaction between residue 6 of the natural peptide ligand and a distinct residue within the amino-terminal tail of the secretin receptor.
J Biol Chem. 1999 Jul 2;274(27):19161-7.
PMID: 10383421 [PubMed - indexed for MEDLINE]

13: [Olde B, Sabirsh A, Owman C.](#) Related Articles, Lin

 Molecular mapping of epitopes involved in ligand activation of the human receptor for the neuropeptide, VIP, based on hybrids with the human secretin receptor.
J Mol Neurosci. 1998 Oct;11(2):127-34.
PMID: 10096039 [PubMed - indexed for MEDLINE]

14: [DeAlmeida VI, Mayo KE.](#) Related Articles, Lin

 Identification of binding domains of the growth hormone-releasing hormone receptor by analysis of mutant and chimeric receptor proteins.
Mol Endocrinol. 1998 May;12(5):750-65.
PMID: 9605937 [PubMed - indexed for MEDLINE]

15: [Gourlet P, Vandermeers A, Vandermeers-Piret MC, De Neef P, Waelbroeck M, Robberecht P.](#) Related Articles, Lin

 Effect of introduction of an arginine16 in VIP, PACAP and secretin on ligand affinity for the receptors.
Biochim Biophys Acta. 1996 Dec 12;1314(3):267-73.

PMID: 8982281 [PubMed - indexed for MEDLINE]

- 16: [van Lier RA, Eichler W, Hamann J.](#) Related Articles, Lin
 Sevenspan transmembrane molecules: novel receptors involved in leukocyte adhesion.
Immunol Lett. 1996 Dec;54(2-3):185-7. Review.
PMID: 9052875 [PubMed - indexed for MEDLINE]
- 17: [Mullaney I, Carr IC, Milligan G.](#) Related Articles, Lin
 Overexpression of G(s)alpha in NG108-15, neuroblastomaXglioma cells: effects on receptor regulation of the stimulatory adenylyl cyclase cascade.
FEBS Lett. 1996 Nov 18;397(2-3):325-30.
PMID: 8955373 [PubMed - indexed for MEDLINE]
- 18: [Holtmann MH, Hadac EM, Ulrich CD, Miller LJ.](#) Related Articles, Lin
 Molecular basis and species specificity of high affinity binding of vasoactive intestinal polypeptide by the rat secretin receptor.
J Pharmacol Exp Ther. 1996 Nov;279(2):555-60.
PMID: 8930157 [PubMed - indexed for MEDLINE]
- 19: [Hamann J, Vogel B, van Schijndel GM, van Lier RA.](#) Related Articles, Lin
 The seven-span transmembrane receptor CD97 has a cellular ligand (CD55 DAF).
J Exp Med. 1996 Sep 1;184(3):1185-9.
PMID: 9064337 [PubMed - indexed for MEDLINE]
- 20: [Gourlet P, Vilardaga JP, De Neef P, Vandermeers A, Waelbroeck M, Bollen A, Robberecht P.](#) Related Articles, Lin
 Interaction of amino acid residues at positions 8-15 of secretin with the N-terminal domain of the secretin receptor.
Eur J Biochem. 1996 Jul 15;239(2):349-55.
PMID: 8706739 [PubMed - indexed for MEDLINE]
- 21: [Turner PR, Bambino T, Nissenson RA.](#) Related Articles, Lin
 A putative selectivity filter in the G-protein-coupled receptors for parathyroid hormone and secretion.
J Biol Chem. 1996 Apr 19;271(16):9205-8.
PMID: 8621578 [PubMed - indexed for MEDLINE]
- 22: [Vilardaga JP, di Paolo E, de Neef P, Waelbroeck M, Bollen A, Robberecht P.](#) Related Articles, Lin
 Lysine 173 residue within the first exoloop of rat secretin receptor is involved in carboxylate moiety recognition of Asp 3 in secretin.
Biochem Biophys Res Commun. 1996 Jan 26;218(3):842-6.
PMID: 8579602 [PubMed - indexed for MEDLINE]
- 23: [Vilardaga JP, De Neef P, Di Paolo E, Bollen A, Waelbroeck M, Robberecht P.](#) Related Articles, Lin
 Properties of chimeric secretin and VIP receptor proteins indicate the importance of the N-terminal domain for ligand discrimination.
Biochem Biophys Res Commun. 1995 Jun 26;211(3):885-91.
PMID: 7598719 [PubMed - indexed for MEDLINE]
- 24: [Holtmann MH, Hadac EM, Miller LJ.](#) Related Articles, Lin
Critical contributions of amino-terminal extracellular domains in agonist



binding and activation of secretin and vasoactive intestinal polypeptide receptors. Studies of chimeric receptors.
J Biol Chem. 1995 Jun 16;270(24):14394-8.
PMID: 7782300 [PubMed - indexed for MEDLINE]

25: Robberecht P, Coy DH, De Neef P, Camus JC, Cauvin A, Waelbroeck M, Christophe J.

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[D-Phe4]peptide histidine-isoleucinamide ([D-Phe4]PHI), a highly selective vasoactive-intestinal-peptide (VIP) agonist, discriminates VIP-preferring from secretin-preferring receptors in rat pancreatic membranes.
Eur J Biochem. 1987 Jun 1;165(2):243-9.
PMID: 3036504 [PubMed - indexed for MEDLINE]

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The secretin receptor was the first member of the Class II family of G protein coupled receptors to be cloned. It is prototypic of this family in its structure, function, and regulation. The extended amino-terminal tail domain includes a series of six conserved Cys residues that contribute three intradomain disulfide bonds. This region of the receptor has been shown by mutagenesis and photo affinity labeling to be particularly important in secretin binding and stimulation of signaling activity. There is clear evidence for the direct interaction of the natural agonist peptide with this receptor domain. Mutagenesis has also identified important contributions of extracellular loop domains, although the specific roles remain unclear. This receptor is regulated by agonist-stimulated phosphorylation and internalization, with details dependent on the cellular environment.

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 Insights into the structure and molecular basis of ligand docking to the G protein-coupled secretin receptor using charge-modified amino terminal agonist probes.
Mol Endocrinol. 2005 Feb 24; [Epub ahead of print]
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 Expression and spatial distribution of secretin and secretin receptor in human cerebellum.
Neuroreport. 2005 Feb 28;16(3):219-22.
PMID: 15706223 [PubMed - in process]

3: [Langer I, Gregoire F, Nachtergael I, De Neef P, Vertongen P, Robberecht P.](#) Related Articles, Link
 Hexanoylation of a VPAC2 receptor-preferring ligand markedly increased its selectivity and potency.
Peptides. 2004 Feb;25(2):275-8.
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 Expression of CD97 and CD55 in human medullary thyroid carcinomas.
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 Spatial approximation between the amino terminus of a peptide agonist and the top of the sixth transmembrane segment of the secretin receptor.
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PMID: 14500709 [PubMed - indexed for MEDLINE]

7: [Taylor WR, Munro RE, Petersen K, Bywater RP.](#) Related Articles, Link

-  Ab initio modelling of the N-terminal domain of the secretin receptors.
Comput Biol Chem. 2003 May;27(2):103-14.
PMID: 12821307 [PubMed - indexed for MEDLINE]
- 8: [Zang M, Dong M, Pinon DI, Ding XQ, Hadac EM, Li Z, Lybrand TP](#). Related Articles, Lin Miller LJ.
-  Spatial approximation between a photolabile residue in position 13 of secretin and the amino terminus of the secretin receptor.
Mol Pharmacol. 2003 May;63(5):993-1001. Erratum in: Mol Pharmacol. 2003 Jun;64(1):19.
PMID: 12695527 [PubMed - indexed for MEDLINE]
- 9: [Mayo KE, Miller LJ, Bataille D, Dalle S, Goke B, Thorens B, Drucker](#) Related Articles, Lin DJ.
-  International Union of Pharmacology. XXXV. The glucagon receptor family
Pharmacol Rev. 2003 Mar;55(1):167-94. Review.
PMID: 12615957 [PubMed - indexed for MEDLINE]
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Receptors Channels. 2002;8(3-4):189-200. Review.
PMID: 12529936 [PubMed - indexed for MEDLINE]
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-  Ghrelin and growth hormone (GH) secretagogues potentiate GH-releasing hormone (GHRH)-induced cyclic adenosine 3',5'-monophosphate production in cells expressing transfected GHRH and GH secretagogue receptors.
Endocrinology. 2002 Dec;143(12):4570-82.
PMID: 12446584 [PubMed - indexed for MEDLINE]
- 12: [Joost P, Methner A](#). Related Articles, Lin
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Genome Biol. 2002 Oct 17;3(11):RESEARCH0063. Epub 2002 Oct 17.
PMID: 12429062 [PubMed - indexed for MEDLINE]
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-  Development of a biologically active secretin analogue incorporating a radioiodinatable photolabile p-(4-hydroxybenzoyl)phenylalanine in position 10.
Regul Pept. 2002 Nov 15;109(1-3):181-7.
PMID: 12409231 [PubMed - indexed for MEDLINE]
- 14: [Unson CG, Wu CR, Jiang Y, Yoo B, Cheung C, Sakmar TP, Merrifield RB](#). Related Articles, Lin
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Biochemistry. 2002 Oct 1;41(39):11795-803.
PMID: 12269822 [PubMed - indexed for MEDLINE]
- 15: [Waelbroeck M, Perret J, Vertogen P, Van Craenenbroeck M, Robberecht P](#). Related Articles, Lin
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Biochem Soc Trans. 2002 Aug;30(4):437-41. Review.
PMID: 12196110 [PubMed - indexed for MEDLINE]

- 16: [Du K, Couvineau A, Rouyer-Fessard C, Nicole P, Laburthe M.](#) Related Articles, Lin
 Human VPAC1 receptor selectivity filter. Identification of a critical domain for restricting secretin binding.
J Biol Chem. 2002 Oct 4;277(40):37016-22. Epub 2002 Jul 19.
PMID: 12133828 [PubMed - indexed for MEDLINE]
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PMID: 11853547 [PubMed - indexed for MEDLINE]
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 Functional segregation of the highly conserved basic motifs within the third endoloop of the human secretin receptor.
Endocrinology. 2001 Sep;142(9):3926-34.
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 Crystal structure of the ectodomain of Methuselah, a Drosophila G protein-coupled receptor associated with extended lifespan.
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 Dual contacts between peptide agonist ligands and the secretin receptor directly established by photoaffinity labeling.
Ann N Y Acad Sci. 2000;921:381-6.
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 Cross-chimeric analysis of selectivity of secretin and VPAC(1) receptor activation.
J Pharmacol Exp Ther. 2000 Nov;295(2):682-8.
PMID: 11046106 [PubMed - indexed for MEDLINE]
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 Identification of two pairs of spatially approximated residues within the carboxyl terminus of secretin and its receptor.
J Biol Chem. 2000 Aug 25;275(34):26032-9.
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 Role of charged amino acids conserved in the vasoactive intestinal polypeptide/secretin family of receptors on the secretin receptor functionality.
Peptides. 1999;20(10):1187-93.
PMID: 10573290 [PubMed - indexed for MEDLINE]
- 24: [Di Paolo E, De Neef P, Moguilevsky N, Petry H, Cnudde J, Bollen A, Waelbroeck M, Robberecht P.](#) Related Articles, Lin

-  Properties of a recombinant human secretin receptor: a comparison with the rat and rabbit receptors.
Pancreas. 1999 Jul;19(1):51-5.
PMID: 10416692 [PubMed - indexed for MEDLINE]
- 25: [Di Paolo E, Petry H, Moguilevsky N, Bollen A, De Neef P, Waelbroeck M, Robberecht P.](#) Related Articles, Lin
-  Mutations of aromatic residues in the first transmembrane helix impair signalling by the secretin receptor.
Receptors Channels. 1999;6(4):309-15.
PMID: 10412723 [PubMed - indexed for MEDLINE]
- 26: [Frimurer TM, Bywater RP.](#) Related Articles, Lin
-  Structure of the integral membrane domain of the GLP1 receptor.
Proteins. 1999 Jun 1;35(4):375-86.
PMID: 10382665 [PubMed - indexed for MEDLINE]
- 27: [Dong M, Wang Y, Hadac EM, Pinon DJ, Holicky E, Miller LJ.](#) Related Articles, Lin
-  Identification of an interaction between residue 6 of the natural peptide ligand and a distinct residue within the amino-terminal tail of the secretin receptor.
J Biol Chem. 1999 Jul 2;274(27):19161-7.
PMID: 10383421 [PubMed - indexed for MEDLINE]
- 28: [Olde B, Sabirsh A, Owman C.](#) Related Articles, Lin
-  Molecular mapping of epitopes involved in ligand activation of the human receptor for the neuropeptide, VIP, based on hybrids with the human secretin receptor.
J Mol Neurosci. 1998 Oct;11(2):127-34.
PMID: 10096039 [PubMed - indexed for MEDLINE]
- 29: [Ng SS, Pang RT, Chow BK, Cheng CH.](#) Related Articles, Lin
-  Real-time evaluation of human secretin receptor activity using cytosensor microphysiometry.
J Cell Biochem. 1999 Mar 15;72(4):517-27.
PMID: 10022611 [PubMed - indexed for MEDLINE]
- 30: [Dong M, Wang Y, Pinon DJ, Hadac EM, Miller LJ.](#) Related Articles, Lin
-  Demonstration of a direct interaction between residue 22 in the carboxyl-terminal half of secretin and the amino-terminal tail of the secretin receptor using photoaffinity labeling.
J Biol Chem. 1999 Jan 8;274(2):903-9.
PMID: 9873030 [PubMed - indexed for MEDLINE]
- 31: [Ganguli SC, Park CG, Holtmann MH, Hadac EM, Kenakin TP, Miller LJ.](#) Related Articles, Lin
-  Protean effects of a natural peptide agonist of the G protein-coupled secretin receptor demonstrated by receptor mutagenesis.
J Pharmacol Exp Ther. 1998 Aug;286(2):593-8.
PMID: 9694908 [PubMed - indexed for MEDLINE]
- 32: [DeAlmeida VI, Mayo KE.](#) Related Articles, Lin
-  Identification of binding domains of the growth hormone-releasing hormone receptor by analysis of mutant and chimeric receptor proteins.

Mol Endocrinol. 1998 May;12(5):750-65.
PMID: 9605937 [PubMed - indexed for MEDLINE]

- 33: [Di Paolo E, De Neef P, Moguilevsky N, Petry H, Bollen A, Waelbroeck M, Robberecht P.](#) Related Articles, Lin

- Contribution of the second transmembrane helix of the secretin receptor to the positioning of secretin.
FEBS Lett. 1998 Mar 13;424(3):207-10.
PMID: 9539152 [PubMed - indexed for MEDLINE]

- 34: [Chow BK.](#) Related Articles, Lin

- Functional antagonism of the human secretin receptor by a recombinant protein encoding the N-terminal ectodomain of the receptor.
Recept Signal Transduct. 1997;7(3):143-50.
PMID: 9440501 [PubMed - indexed for MEDLINE]

- 35: [Gourlet P, Vandermeers A, Vandermeers-Piret MC, De Neef P, Waelbroeck M, Robberecht P.](#) Related Articles, Lin

- Effect of introduction of an arginine16 in VIP, PACAP and secretin on ligand affinity for the receptors.
Biochim Biophys Acta. 1996 Dec 12;1314(3):267-73.
PMID: 8982281 [PubMed - indexed for MEDLINE]

- 36: [van Lier RA, Eichler W, Hamann J.](#) Related Articles, Lin

- Sevenspan transmembrane molecules: novel receptors involved in leukocyte adhesion.
Immunol Lett. 1996 Dec;54(2-3):185-7. Review.
PMID: 9052875 [PubMed - indexed for MEDLINE]

- 37: [Mullaney I, Carr IC, Milligan G.](#) Related Articles, Lin

- Overexpression of G(s)alpha in NG108-15, neuroblastomaXglioma cells: effects on receptor regulation of the stimulatory adenylyl cyclase cascade.
FEBS Lett. 1996 Nov 18;397(2-3):325-30.
PMID: 8955373 [PubMed - indexed for MEDLINE]

- 38: [Holtmann MH, Hadac EM, Ulrich CD, Miller LJ.](#) Related Articles, Lin

- Molecular basis and species specificity of high affinity binding of vasoactive intestinal polypeptide by the rat secretin receptor.
J Pharmacol Exp Ther. 1996 Nov;279(2):555-60.
PMID: 8930157 [PubMed - indexed for MEDLINE]

- 39: [Hamann J, Vogel B, van Schijndel GM, van Lier RA.](#) Related Articles, Lin

- The seven-span transmembrane receptor CD97 has a cellular ligand (CD55 DAF).
J Exp Med. 1996 Sep 1;184(3):1185-9.
PMID: 9064337 [PubMed - indexed for MEDLINE]

- 40: [Holtmann MH, Ganguli S, Hadac EM, Dolu V, Miller LJ.](#) Related Articles, Lin

- Multiple extracellular loop domains contribute critical determinants for agonist binding and activation of the secretin receptor.
J Biol Chem. 1996 Jun 21;271(25):14944-9.
PMID: 8663161 [PubMed - indexed for MEDLINE]

- 41: [Turner PR, Bambino T, Nissenson RA.](#) Related Articles, Lin

A putative selectivity filter in the G-protein-coupled receptors for

-  parathyroid hormone and secretion.
J Biol Chem. 1996 Apr 19;271(16):9205-8.
PMID: 8621578 [PubMed - indexed for MEDLINE]
- 42: [Vilardaga JP, di Paolo E, de Neef P, Waelbroeck M, Bollen A, Robberecht P.](#) Related Articles, Lin
 Lysine 173 residue within the first exoloop of rat secretin receptor is involved in carboxylate moiety recognition of Asp 3 in secretin.
Biochem Biophys Res Commun. 1996 Jan 26;218(3):842-6.
PMID: 8579602 [PubMed - indexed for MEDLINE]
- 43: [Ozcelebi F, Holtmann MH, Rentsch RU, Rao R, Miller LJ.](#) Related Articles, Lin
 Agonist-stimulated phosphorylation of the carboxyl-terminal tail of the secretin receptor.
Mol Pharmacol. 1995 Nov;48(5):818-24.
PMID: 7476911 [PubMed - indexed for MEDLINE]
- 44: [Vilardaga JP, De Neef P, Di Paolo E, Bollen A, Waelbroeck M, Robberecht P.](#) Related Articles, Lin
 Properties of chimeric secretin and VIP receptor proteins indicate the importance of the N-terminal domain for ligand discrimination.
Biochem Biophys Res Commun. 1995 Jun 26;211(3):885-91.
PMID: 7598719 [PubMed - indexed for MEDLINE]
- 45: [Usdin TB, Mezey E, Button DC, Brownstein MJ, Bonner TI.](#) Related Articles, Lin
 Gastric inhibitory polypeptide receptor, a member of the secretin-vasoactive intestinal peptide receptor family, is widely distributed in peripheral organs and the brain.
Endocrinology. 1993 Dec;133(6):2861-70.
PMID: 8243312 [PubMed - indexed for MEDLINE]
- 46: [Roth BL, Beinfeld MC, Howlett AC.](#) Related Articles, Lin
 Secretin receptors on neuroblastoma cell membranes: characterization of ¹²⁵I-labeled secretin binding and association with adenylate cyclase.
J Neurochem. 1984 Apr;42(4):1145-52.
PMID: 6321661 [PubMed - indexed for MEDLINE]

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Effect of introduction of an arginine16 in VIP, PACAP and secretin on ligand affinity for the receptors.

Gourlet P, Vandermeers A, Vandermeers-Piret MC, De Neef P, Waelbroeck M, Robberecht P.

Department of Biochemistry and Nutrition, Faculty of Medicine, Universite Libre de Bruxelles, Belgium.

Rabbit secretin, which differs from all other mammalian secretins in having a Leu residue in position 6 (instead of Phe) and a basic residue (Arg) in position 16, had a lower affinity than porcine secretin on recombinant rat secretin receptors but had a greater affinity than porcine secretin on recombinant rat VIP1 and PACAP I receptors. Synthetic [L6] porcine secretin had a reduced potency on secretin and VIP1 receptors whereas [R16] porcine secretin had a similar binding profile as rabbit secretin. Thus, an arginine residue in position 16 reduced 3-fold the affinity of secretin for secretin receptors but increased 30-fold its affinity for the VIP1 and PACAP I receptors. The introduction of arginine residue in position 16, instead of glutamine, in VIP and PACAP had a similar effect: [R16] VIP and [R16] PACAP had 3- to 10-fold higher affinities than VIP and PACAP for VIP1 and PACAP I receptors, and 3-fold lower affinities for the secretin receptors. The three [R16] peptides also had a reduced potency on the chimeric receptor consisting of the N-terminal part of the secretin receptor grafted on the VIP1 receptor, and an enhanced potency on the chimeric receptor consisting of the N-terminal part of VIP1 receptor grafted on the secretin receptor, indicating that position 16 of each ligand interacted with the N-terminal extracellular domain of the receptors.

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Identification of binding domains of the growth hormone-releasing hormone receptor by analysis of mutant and chimeric receptor proteins.

DeAlmeida VI, Mayo KE.

Department of Biochemistry, Molecular Biology and Cell Biology,
Northwestern University, Evanston, Illinois 60208, USA.

The hypothalamic peptide GH-releasing hormone (GHRH) stimulates the release of GH from the pituitary through binding and activation of the GHRH receptor, which belongs to the family of G protein-coupled receptors. The objective of this study was to identify regions of the receptor critical for interaction with the ligand by expressing and analyzing truncated and chimeric epitope-tagged GHRH receptors. Two truncated receptors, GHRH Δ N, in which part of the N-terminal domain between the putative signal sequence and the first transmembrane domain was deleted, and GHRH Δ C, which was truncated downstream of the first intracellular loop, were generated. Both the receptors were deficient in ligand binding, indicating that neither the N-terminal extracellular domain (N terminus) nor the membrane-spanning domains with the associated extracellular loops (C terminus) are alone sufficient for interaction with GHRH. In subsequent studies, chimeric proteins between the receptors for GHRH and vasoactive intestinal peptide (VIP) or secretin were generated, using the predicted start of the first transmembrane domain as the junction for the exchange of the N terminus between receptors. The chimeras having the N terminus of the GHRH receptor and the C terminus of either the VIP or secretin receptor (GNVC and GNSC) did not bind GHRH or activate adenylate cyclase after GHRH treatment. The reciprocal chimeras having the N terminus of either the VIP or secretin receptors and the C terminus of the GHRH receptor (VNGC and SNGC) bound GHRH and stimulated cAMP accumulation after GHRH treatment. These results suggest that although the N-terminal extracellular domain is essential for ligand binding, the transmembrane domains and associated extracellular loop regions of the GHRH receptor provide critical information necessary for specific interaction with GHRH.



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Properties of a recombinant human secretin receptor: a comparison with the rat and rabbit receptors.

Di Paolo E, De Neef P, Moguilevsky N, Petry H, Cnudde J, Bollen A, Waelbroeck M, Robberecht P.

Department of Biochemistry, Faculty of Medicine, Brussels, Belgium.

A secretin receptor was cloned from a commercial human pancreatic complementary DNA (cDNA) bank. The amino acid sequence deduced from the nucleotide sequence differed slightly from the three different sequences previously published, suggesting a genetic polymorphism of the human receptor. The binding properties of the receptor were evaluated by testing natural secretin, related peptides, and synthetic analogs or fragments on membranes of Chinese hamster ovary (CHO) cells expressing the receptor after transfection. The second-messenger coupling was evaluated by adenylate cyclase measurement. The human secretin receptor was compared with the rat and the rabbit receptors. In the three animal species, rat and human secretin were equipotent; rabbit secretin was equipotent on human and rabbit secretin receptors and less potent on the rat receptor. Similar data were obtained for the [Arg16]-secretin analog. Deletion of histidine 1 and replacement of aspartate reduced the affinity of the peptides for the three receptors; however, the reduction was more pronounced on rat than on human and rabbit secretin receptors. Finally, the low affinity of the rat and human receptors for vasoactive intestinal peptide (VIP) was identical; the rabbit receptor, however, had a 20-fold higher affinity. Thus the human secretin receptor shows properties of both rat and rabbit receptors. Evaluation of the properties of chimeric receptors will be useful to fit the ligand on the receptors.

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FILE 'WPIDS' ENTERED AT 13:38:50 ON 24 MAR 2005
COPYRIGHT (C) 2005 THE THOMSON CORPORATION

FILE 'WPINDEX' ACCESS NOT AUTHORIZED

=> S COPD OR chronic obstructive pulmonary disease
12 FILES SEARCHED...
25 FILES SEARCHED...
37 FILES SEARCHED...
53 FILES SEARCHED...
71 FILES SEARCHED...

L1 194530 COPD OR CHRONIC OBSTRUCTIVE PULMONARY DISEASE

=> S VIP OR vasoactive peptide OR secretin
24 FILES SEARCHED...
38 FILES SEARCHED...
71 FILES SEARCHED...

L2 146961 VIP OR VASOACTIVE PEPTIDE OR SECRETIN

=> S L1 AND L2
51 FILES SEARCHED...

L3 3551 L1 AND L2

=> DUP REM L3

DUPLICATE IS NOT AVAILABLE IN 'ADISINSIGHT, ADISNEWS, BIOCOMMERCE, DGENE,
DRUGMONOG2, FEDRIP, FOREGE, GENBANK, IMSPRODUCT, IMSRESEARCH, KOSMET,
MEDICONF, NUTRACEUT, PCTGEN, PHAR, PHARMAML, PROUSDDR, PS, RDISCLOSURE,
SYNTHLINE'.

ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE
PROCESSING COMPLETED FOR L3

L4 3469 DUP REM L3 (82 DUPLICATES REMOVED)

=> S L4 AND PY<=2000
'2000' NOT A VALID FIELD CODE

5 FILES SEARCHED...

10 FILES SEARCHED...

12 FILES SEARCHED...

15 FILES SEARCHED...

20 FILES SEARCHED...

'2000' NOT A VALID FIELD CODE

27 FILES SEARCHED...

31 FILES SEARCHED...

'2000' NOT A VALID FIELD CODE

'2000' NOT A VALID FIELD CODE

40 FILES SEARCHED...

46 FILES SEARCHED...

'2000' NOT A VALID FIELD CODE

49 FILES SEARCHED...

53 FILES SEARCHED...

'2000' NOT A VALID FIELD CODE

59 FILES SEARCHED...

'2000' NOT A VALID FIELD CODE

64 FILES SEARCHED...

69 FILES SEARCHED...

71 FILES SEARCHED...

L5 3143 L4 AND PY<=2000

=> S L5 AND secretin

53 FILES SEARCHED...

L6 6 L5 AND SECRETIN

=> D L6 1-6

L6 ANSWER 1 OF 6 DGENE COPYRIGHT 2005 The Thomson Corp on STN

AN AAW37796 peptide DGENE

TI New ligands for vasoactive intestinal peptide receptor - is useful for
treating ***VIP*** -related disorders, e.g. asthma, tumours,
myocardial infarction, stroke, inflammation or auto-immune disease

IN Gourlet P; Robberecht P; Vandermeers A; Woelbroeck M

PA (ULBR) UNIV LIBRE BRUXELLES.

PI ***WO 9802453 A2 19980122

38p***

AI WO 1997-BE84 19970715

PRAI EP 1996-870121 19960919
EP 1996-870092 19960715
DT Patent
LA English
OS 1998-110523 [10]
DESC Porcine ***secretin*** peptide variant 2.

L6 ANSWER 2 OF 6 DGENE COPYRIGHT 2005 The Thomson Corp on STN
AN AAW37795 peptide DGENE
TI New ligands for vasoactive intestinal peptide receptor - is useful for treating ***VIP*** -related disorders, e.g. asthma, tumours, myocardial infarction, stroke, inflammation or auto-immune disease
IN Gourlet P; Robberecht P; Vandermeers A; Woelbroeck M
PA (ULBR) UNIV LIBRE BRUXELLES.
PI ***WO 9802453 A2 19980122 38p***
AI WO 1997-BE84 19970715
PRAI EP 1996-870121 19960919
EP 1996-870092 19960715
DT Patent
LA English
OS 1998-110523 [10]
DESC Porcine ***secretin*** peptide variant 1.

L6 ANSWER 3 OF 6 DGENE COPYRIGHT 2005 The Thomson Corp on STN
AN AAW37794 peptide DGENE
TI New ligands for vasoactive intestinal peptide receptor - is useful for treating ***VIP*** -related disorders, e.g. asthma, tumours, myocardial infarction, stroke, inflammation or auto-immune disease
IN Gourlet P; Robberecht P; Vandermeers A; Woelbroeck M
PA (ULBR) UNIV LIBRE BRUXELLES.
PI ***WO 9802453 A2 19980122 38p***
AI WO 1997-BE84 19970715
PRAI EP 1996-870121 19960919
EP 1996-870092 19960715
DT Patent
LA English
OS 1998-110523 [10]
DESC Rabbit ***secretin*** peptide.

L6 ANSWER 4 OF 6 DGENE COPYRIGHT 2005 The Thomson Corp on STN
AN AAW37793 peptide DGENE
TI New ligands for vasoactive intestinal peptide receptor - is useful for treating ***VIP*** -related disorders, e.g. asthma, tumours, myocardial infarction, stroke, inflammation or auto-immune disease
IN Gourlet P; Robberecht P; Vandermeers A; Woelbroeck M
PA (ULBR) UNIV LIBRE BRUXELLES.
PI ***WO 9802453 A2 19980122 38p***
AI WO 1997-BE84 19970715
PRAI EP 1996-870121 19960919
EP 1996-870092 19960715
DT Patent
LA English
OS 1998-110523 [10]
DESC Porcine ***secretin*** peptide.

L6 ANSWER 5 OF 6 PROMT COPYRIGHT 2005 Gale Group on STN

ACCESSION NUMBER: 95:217935 PROMT
TITLE: DUGAN/FARLEY COMMUNICATIONS
SOURCE: Med Ad News, (***Apr 1995***) pp. 41.
ISSN: 0745-0907.
LANGUAGE: English
WORD COUNT: 1267
FULL TEXT IS AVAILABLE IN THE ALL FORMAT

L6 ANSWER 6 OF 6 USPATFULL on STN
AN 79:19306 USPATFULL
TI Method and means for the early detection and diagnosis of certain types of cancers
IN Wolfsen, Ada R., Fountain Valley, CA, United States
Odell, William D., Miraleste, CA, United States
PA Professional Staff Association of the Los Angeles County Harbor General

PI Hospital, Torrance, CA, United States (U.S. corporation)
AI US 4150149 19790417
DT Utility
FS Granted
LN.CNT 841
INCL INCLM: 424/001.000
INCLS: 023/230.000B; 206/569.000; 424/012.000
NCL NCLM: 436/542.000
NCLS: 206/569.000; 436/804.000; 436/808.000; 436/813.000; 436/817.000
IC [2]
ICM: G01N033-16
ICS: A61K043-00
EXF 023/230B; 023/259R; 424/1; 424/1.5; 424/12; 206/569
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> S L5 AND vasoactive peptide
25 FILES SEARCHED...
66 FILES SEARCHED...
L7 3113 L5 AND VASOACTIVE PEPTIDE

=> S L7 AND chronic obstructive pulmonary disease
13 FILES SEARCHED...
25 FILES SEARCHED...
44 FILES SEARCHED...
59 FILES SEARCHED...
L8 3113 L7 AND CHRONIC OBSTRUCTIVE PULMONARY DISEASE

=> S L8 AND secretin receptor
25 FILES SEARCHED...
37 FILES SEARCHED...
68 FILES SEARCHED...
L9 0 L8 AND SECRETIN RECEPTOR

=> S chronic-obstructive-pulmonary-disease
14 FILES SEARCHED...
25 FILES SEARCHED...
45 FILES SEARCHED...
61 FILES SEARCHED...
L10 173952 CHRONIC-OBSTRUCTIVE-PULMONARY-DISEASE

=> S vasoactive-peptide OR secretin
75% OF LIMIT FOR L#S REACHED
25 FILES SEARCHED...
66 FILES SEARCHED...
L11 63332 VASOACTIVE-PEPTIDE OR SECRETIN

=> S L10 AND L11
52 FILES SEARCHED...
L12 3311 L10 AND L11

=> S L12 AND secretin-receptor
27 FILES SEARCHED...
53 FILES SEARCHED...
L13 70 L12 AND SECRETIN-RECEPTOR

=> DUP REM L13
DUPLICATE IS NOT AVAILABLE IN 'ADISINSIGHT, ADISNEWS, BIOCOMMERCE, DGENE,
DRUGMONOG2, FEDRIP, FOREGE, GENBANK, IMSPRODUCT, IMSRESEARCH, KOSMET,
MEDICONF, NUTRACEUT, PCTGEN, PHAR, PHARMAML, PROUSDDR, PS, RDISCLOSURE,
SYNTHLINE'.
ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE
PROCESSING COMPLETED FOR L13

L14 65 DUP REM L13 (5 DUPLICATES REMOVED)

=> D L14 1-65

L14 ANSWER 1 OF 65 USPATFULL on STN
AN 2005:38338 USPATFULL
TI Receptors and membrane-associated proteins
IN Lal, Preeti G., Santa Clara, CA, UNITED STATES

Warren, Bridget A., Los Altos, CA, UNITED STATES
Xu, Yuming, Mountain View, CA, UNITED STATES
Duggan, Brendan M., Sunnyvale, CA, UNITED STATES
Honchell, Cynthia D., San Carlos, CA, UNITED STATES
Kallick, Deborah A., Atherton, CA, UNITED STATES
Baughn, Mariah R., San Leandro, CA, UNITED STATES
Tang, Y. Tom, San Jose, CA, UNITED STATES
Yue, Henry, Sunnyvale, CA, UNITED STATES
Bandman, Olga, Mountain View, CA, UNITED STATES
Jones, Karen Anne, Essex, UNITED KINGDOM
Becha, Shanya D., Castro Valley, CA, UNITED STATES
Tran, Uyen K., San Jose, CA, UNITED STATES
Au-Young, Janice K., Brisbane, UNITED KINGDOM
Griffin, Jennifer A., Fremont, CA, UNITED STATES
Zebarjadian, Yeganeh, San Francisco, CA, UNITED STATES
Lee, Ernestie A., Castro Valley, CA, UNITED STATES
Elliott, Vicki S., San Jose, CA, UNITED STATES
Thangavelu, Kavitha, Mountain View, CA, UNITED STATES
Ramkumar, Jayalaxmi, Fremont, CA, UNITED STATES
Lu, Yan, Palo Alto, CA, UNITED STATES
Hafalia, April J.A., Santa Clara, CA, UNITED STATES
Chawla, Narinder K., San Leandro, CA, UNITED STATES
Ison, Craig H., San Jose, CA, UNITED STATES
Thornton, Michael B., Woodside, CA, UNITED STATES
Swarnakar, Anita, San Francisco, CA, UNITED STATES
Yang, Junming, San Jose, CA, UNITED STATES
Richardson, Thomas W., Redwood City, CA, UNITED STATES
Emerling, Brooke M., Palo Alto, CA, UNITED STATES
Yao, Monique G., Carmel, IN, UNITED STATES
Cocks, Benjamin G., Sunnyvale, CA, UNITED STATES
Sanjanwala, Bharati, Los Altos, CA, UNITED STATES
Mason, Patricia M., Morgan Hill, CA, UNITED STATES
Gandhi, Ameena R., San Francisco, CA, UNITED STATES
Li, Joana X., San Francisco, CA, UNITED STATES
Gururajan, Rajagopal, San Jose, CA, UNITED STATES
Gietzen, Kimberly J., San Jose, CA, UNITED STATES
Forsythe, Ian J., Redwood City, CA, UNITED STATES

PI US 2005033018 A1 20050210
AI US 2004-477714 A1 20040601 (10)

WO 2002-US15899 20020516
PRAI US 2001-292197P 20010518 (60)
US 2001-297012P 20010608 (60)
US 2001-300582P 20010621 (60)
US 2001-300495P 20010622 (60)
US 2001-301992P 20010628 (60)
US 2001-340542P 20011214 (60)

DT Utility

FS APPLICATION

LN.CNT 11726

INCL INCLM: 530/350.000
INCLS: 536/023.500; 435/069.100; 435/320.100; 435/325.000
NCL NCLM: 530/350.000
NCLS: 536/023.500; 435/069.100; 435/320.100; 435/325.000

IC [7]
ICM: C07K014-705
ICS: C07H021-04

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 2 OF 65 USPATFULL on STN

AN 2005:30389 USPATFULL

TI Materials and methods for making improved micelle compositions
IN Onyuksel, Hayat, Western Springs, IL, UNITED STATES
Rubinstein, Israel, Highland Park, IL, UNITED STATES

PI US 2005025819 A1 20050203
AI US 2004-496819 A1 20040907 (10)

WO 2002-US38186 20021127

RLI Continuation-in-part of Ser. No. US 2001-995403, filed on 27 Nov 2001,
PENDING Continuation-in-part of Ser. No. US 1999-239069, filed on 27 Jan
1999, GRANTED, Pat. No. US 6217886 Continuation-in-part of Ser. No. US
2000-462819, filed on 18 May 2000, GRANTED, Pat. No. US 6322810 A 371 of
International Ser. No. WO 1998-US14316, filed on 9 Jul 1998, PENDING

PRAI US 1997-52078P 19970714 (60)

DT Utility
FS APPLICATION
LN.CNT 3342
INCL INCLM: 424/450.000
INCLS: 424/078.270
NCL NCLM: 424/450.000
NCLS: 424/078.270
IC [7]
ICM: A61K009-127

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 3 OF 65 USPATFULL on STN
AN 2005:23203 USPATFULL
TI Apoptosis-related kinase/GPCRs
IN Seery, Liam, Cork, IRELAND
Hayes, Ian, Cork, IRELAND
Murphy, Finbarr, Cork, IRELAND
PA EiRx Therapeutics Limited (non-U.S. corporation)
PI US 2005019746 A1 20050127
AI US 2004-781581 A1 20040218 (10)
RLI Continuation-in-part of Ser. No. US 2004-764238, filed on 23 Jan 2004,
PENDING
PRAI GB 2003-1566 20030123
US 2003-457533P 20030325 (60)
DT Utility
FS APPLICATION
LN.CNT 10710
INCL INCLM: 435/004.000
INCLS: 435/006.000
NCL NCLM: 435/004.000
NCLS: 435/006.000
IC [7]
ICM: C12Q001-00
ICS: C12Q001-68

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 4 OF 65 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
DUPLICATE 1
AN 2004:390080 BIOSIS
DN PREV200400394661
TI Use of ***secretin*** - ***receptor*** ligands in treatment of
cystic fibrosis (CF) and ***chronic*** ***obstructive***
pulmonary ***disease*** (COPD).
AU Davis, Richard J. [Inventor, Reprint Author]; Page, Keith J. [Inventor]
CS Hertfordshire, UK
ASSIGNEE: Pharmagene Laboratories Ltd., Hertfordshire, UK
PI US 6780839 August 24, 2004
SO Official Gazette of the United States Patent and Trademark Office Patents,
(Aug 24 2004) Vol. 1285, No. 4. <http://www.uspto.gov/web/menu/patdata.html>
. e-file.
ISSN: 0098-1133 (ISSN print).
DT Patent
LA English
ED Entered STN: 6 Oct 2004
Last Updated on STN: 6 Oct 2004

L14 ANSWER 5 OF 65 IFIPAT COPYRIGHT 2005 IFI on STN DUPLICATE 2
AN 10683998 IFIPAT;IFIUDB;IFICDB
TI USE OF ***SECRETIN*** - ***RECEPTOR*** LIGANDS IN TREATMENT OF
CYSTIC FIBROSIS (CF) AND ***CHRONIC*** ***OBSTRUCTIVE***
PULMONARY ***DISEASE*** (COPD)
IN Davis Richard J (GB); Page Keith J (GB)
PA Pharmagene Laboratories Ltd GB (62535)
PI US 2004191238 A1 20040930
AI US 2004-822677 20040413
RLI US 2001-897412 20010703 DIVISION PENDING
PRAI GB 2000-164418 20000704
FI US 2004191238 20040930
DT Utility; Patent Application - First Publication
FS CHEMICAL
APPLICATION
CLMN 10

GI 9 Figure(s).

FIG. 1 shows an alignment of human, porcine and canine ***secretin*** .
FIG. 2 shows differential expression of mRNA of the ***secretin*** ***receptor*** in control and CF lung regions.
FIG. 3 shows mRNA expression of GAPDH in control and lung CF regions.
FIG. 4 shows differential expression of mRNA of the ***secretin*** ***receptor*** in control and CF lung regions from a sample of 16 control and 25 CF tissue donors.
FIG. 5 shows that ***secretin*** stimulates ionic movement in the nonCF tertiary bronchus.
FIG. 6 shows that ***secretin*** stimulates non-CTFR dependent ionic movement in confluent monolayers of primary human tertiary bronchial epithelial cells derived from non-CF donors.
FIG. 7 shows that ***secretin*** stimulates ionic movement in the human CF tertiary bronchus.
FIG. 8 shows the effect of ***secretin*** on chloride ion efflux in primary human tertiary bronchial epithelial cells derived from non CF donors.
FIG. 9 shows the levels of NeuroD mRNA in tertiary bronchus and lung parenchyma of CF patients.

L14 ANSWER 6 OF 65 USPATFULL on STN

AN 2004:314579 USPATFULL

TI Receptors and membrane associated proteins

IN Lal, Preeti G, Santa Clara, CA, UNITED STATES

Honchell, Cynthia D, San Francisco, CA, UNITED STATES

Forsythe, Ian J, Edmonton, CA, UNITED STATES

Chawla, Narinder K, Union City, CA, UNITED STATES

Tang, Y Tom, San Jose, CA, UNITED STATES

Borowsky, Mark L, Northampton, MA, UNITED STATES

Barroso, Ines, Cambridge, UNITED KINGDOM

Yue, Henry, Sunnyvale, CA, UNITED STATES

Warren, Bridget A, San Marcos, CA, UNITED STATES

Thangavelu, Kavitha, Sunnyvale, CA, UNITED STATES

Gietzen, Kimberly J, San Jose, CA, UNITED STATES

Azimzai, Yalda, Oakland, CA, UNITED STATES

Lee, Ernestine A, Kensington, CA, UNITED STATES

Baughn, Mariah R, Los Angeles, CA, UNITED STATES

Gorvad, Ann E, Bellingham, WA, UNITED STATES

Duggan, Brendan M, Sunnyvale, CA, UNITED STATES

Tran, Bao, Santa Clara, CA, UNITED STATES

Li, Joana X, Millbrae, CA, UNITED STATES

Richardson, Thomas W, Redwood City, CA, UNITED STATES

Elliott, Vicki S, San Jose, CA, UNITED STATES

Zebarjadian, Yeganeh, San Francisco, CA, UNITED STATES

Tran, Uyen K, San Jose, CA, UNITED STATES

Yao, Monique G, Mountain View, CA, UNITED STATES

Peterson, David P, San Jose, CA, UNITED STATES

Luo, Wen, San Diego, CA, UNITED STATES

Patricia, Lehr-Mason, Morgan Hill, CA, UNITED STATES

PI US 2004248251 A1 20041209

AI US 2004-484148 A1 20040707 (10)

WO 2002-US22833 20020716

PRAI US 2001-60306020 20010717

US 2001-60308179 20010727

US 2001-60309702 20010802

US 2001-60311476 20010810

US 2001-60311718 20010810

US 2001-60311551 20010810

US 2001-60314798 20010824

US 2001-60316639 20010831

US 2001-60317996 20010907

DT Utility

FS APPLICATION

LN.CNT 11092

INCL INCLM: 435/069.100

INCLS: 435/320.100; 435/325.000; 530/350.000; 536/023.500

NCL NCLM: 435/069.100

NCLS: 435/320.100; 435/325.000; 530/350.000; 536/023.500

IC [7]

ICM: C07K014-705

ICS: C07H021-04

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 7 OF 65 USPATFULL on STN
AN 2004:314488 USPATFULL
TI Novel 14275, 54420, 8797, 27439, 68730, 69112 and 52908 molecules and uses therefor
IN Glucksmann, Maria A., Lexington, MA, UNITED STATES
Curtis, Rory A.J., Ashland, MA, UNITED STATES
Tsai, Fong-Ying, Newton, MA, UNITED STATES
Hodge, Martin R., Lexington, MA, UNITED STATES
Meyers, Rachel E., Newton, MA, UNITED STATES
MacBeth, Kyle J., Boston, MA, UNITED STATES
Bandaru, Rajasekhar, Watertown, MA, UNITED STATES
PA Millennium Pharmaceuticals, Inc. (U.S. corporation)
PI US 2004248160 A1 20041209
AI US 2004-782695 A1 20040219 (10)
RLI Continuation-in-part of Ser. No. US 2001-7399, filed on 5 Nov 2001, ABANDONED Continuation of Ser. No. US 1999-390039, filed on 3 Sep 1999, ABANDONED Continuation-in-part of Ser. No. US 1998-146416, filed on 3 Sep 1998, ABANDONED Continuation-in-part of Ser. No. US 2002-103458, filed on 22 Mar 2002, ABANDONED Continuation of Ser. No. US 2000-544797, filed on 7 Apr 2000, ABANDONED Continuation-in-part of Ser. No. US 2001-945254, filed on 31 Aug 2001, ABANDONED Continuation-in-part of Ser. No. US 2001-945301, filed on 31 Aug 2001, ABANDONED Continuation-in-part of Ser. No. US 2001-24036, filed on 17 Dec 2001, ABANDONED Continuation-in-part of Ser. No. US 2002-192440, filed on 10 Jul 2002, ABANDONED
PRAI US 2000-229829P 20000831 (60)
US 2000-229301P 20000901 (60)
US 2000-258222P 20001222 (60)
US 2001-341953P 20011219 (60)
US 2001-304243P 20010710 (60)
DT Utility
FS APPLICATION
LN.CNT 27443
INCL INCLM: 435/006.000
INCLS: 435/069.100; 435/320.100; 435/325.000; 530/350.000; 536/023.500
NCL NCLM: 435/006.000
NCLS: 435/069.100; 435/320.100; 435/325.000; 530/350.000; 536/023.500
IC [7]
ICM: C12Q001-68
ICS: C07H021-04; C07K014-705

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 8 OF 65 USPATFULL on STN
AN 2004:280316 USPATFULL
TI Apoptosis-related kinase/GPCRs
IN Seery, Liam, Cork, IRELAND
Hayes, Ian, Cork, IRELAND
Murphy, Finbarr, Cork, IRELAND
PA EiRx Therapeutics Limited (non-U.S. corporation)
PI US 2004219616 A1 20041104
AI US 2004-764238 A1 20040123 (10)
PRAI GB 2003-1566 20030123
US 2003-457533P 20030325 (60)
DT Utility
FS APPLICATION
LN.CNT 7374
INCL INCLM: 435/007.230
NCL NCLM: 435/007.230
IC [7]
ICM: G01N033-574

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 9 OF 65 USPATFULL on STN
AN 2004:221240 USPATFULL
TI G-protein coupled receptor arrays
IN Thirstrup, Kenneth, Kobenhavn, DENMARK
Madsen, Lars Siim, Kobenhavn, DENMARK
Jensen, Jens Bitsch, Kobenhavn, DENMARK
Hummel, Rene, Hellerup, DENMARK
Jensen, Bo Skaaning, Kobenhavn, DENMARK

PI US 2004171008 A1 20040902
AI US 2003-477399 A1 20031112 (10)
WO 2002-DK337 20020521
PRAI DE 2001-A802 20010518
DT Utility
FS APPLICATION
LN.CNT 1805
INCL INCLM: 435/006.000
INCLS: 530/350.000; 435/287.200
NCL NCLM: 435/006.000
NCLS: 530/350.000; 435/287.200
IC [7]
ICM: C12Q001-68
ICS: C12M001-34; C07K014-705
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 10 OF 65 USPATFULL on STN
AN 2004:13613 USPATFULL
TI Composition for the detection of signaling pathway gene expression
IN Au-Young, Janice, Brisbane, CA, UNITED STATES
Seilhamer, Jeffrey J., Los Altos Hills, CA, UNITED STATES
PA Incyte Genomics, Inc., Palo Alto, CA (U.S. corporation)
PI US 2004010136 A1 20040115
AI US 2002-305720 A1 20021126 (10)
RLI Continuation of Ser. No. US 1998-16434, filed on 30 Jan 1998, GRANTED,
Pat. No. US 6500938
DT Utility
FS APPLICATION
LN.CNT 6582
INCL INCLM: 536/024.300
INCLS: 702/020.000
NCL NCLM: 536/024.300
NCLS: 702/020.000
IC [7]
ICM: C07H021-04
ICS: G06F019-00; G01N033-48; G01N033-50
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 11 OF 65 USPATFULL on STN
AN 2004:7325 USPATFULL
TI Proteins, polynucleotides encoding them and methods of using the same
IN Anderson, David W., Branford, CT, UNITED STATES
Burgess, Catherine E., Wethersfield, CT, UNITED STATES
Casman, Stacie J., North Haven, CT, UNITED STATES
Colman, Steven D., Guilford, CT, UNITED STATES
Edinger, Shlomit R., New Haven, CT, UNITED STATES
Ellerman, Karen, Branford, CT, UNITED STATES
Gerlach, Valerie, Branford, CT, UNITED STATES
Gunther, Erik, Branford, CT, UNITED STATES
Kekuda, Ramesh, Stamford, CT, UNITED STATES
MacDougall, John R., Hamden, CT, UNITED STATES
Mehrabian, Fuad, Trumbull, CT, UNITED STATES
Patturajan, Meera, Branford, CT, UNITED STATES
Rothenberg, Mark, Clinton, CT, UNITED STATES
Shimkets, Richard A., Guilford, CT, UNITED STATES
Smithson, Glennda, Guilford, CT, UNITED STATES
Spytek, Kimberly A., New Haven, CT, UNITED STATES
Stone, David J., Guilford, CT, UNITED STATES
Vernet, Corine A.M., Branford, CT, UNITED STATES
Zerhusen, Bryan D., Branford, CT, UNITED STATES

PI US 2004005558 A1 20040108
AI US 2002-52648 A1 20020118 (10)
PRAI US 2001-262454P 20010118 (60)
US 2001-272920P 20010302 (60)
US 2001-284549P 20010418 (60)
US 2001-303229P 20010705 (60)
US 2001-262892P 20010119 (60)
US 2001-263605P 20010123 (60)
US 2001-269098P 20010215 (60)
US 2001-264159P 20010125 (60)
US 2001-265517P 20010131 (60)
US 2001-271855P 20010227 (60)

US 2001-267057P 20010207 (60)
US 2001-286287P 20010425 (60)
DT Utility
FS APPLICATION
LN.CNT 10349
INCL INCLM: 435/006.000
INCLS: 435/007.200; 435/069.100; 435/320.100; 435/325.000; 514/012.000;
514/044.000; 530/350.000; 530/388.100
NCL NCLM: 435/006.000
NCLS: 435/007.200; 435/069.100; 435/320.100; 435/325.000; 514/012.000;
514/044.000; 530/350.000; 530/388.100
IC [7]
ICM: C12Q001-68
ICS: G01N033-53; G01N033-567; A61K038-17; A61K048-00; C12P021-02;
C12N005-06; C07K014-47; C07K016-18
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 12 OF 65 USPATFULL on STN
AN 2004:7324 USPATFULL
TI Proteins, polynucleotides encoding them and methods of using the same
IN Padigaru, Muralidhara, Branford, CT, UNITED STATES
Alsobrook, John P., II, Madison, CT, UNITED STATES
Colman, Steven D., Guilford, CT, UNITED STATES
Spytek, Kimberly A., New Haven, CT, UNITED STATES
Boldog, Ferenc L., North Haven, CT, UNITED STATES
Vernet, Corine A.M., Branford, CT, UNITED STATES
Li, Li, Branford, CT, UNITED STATES
Shenoy, Suresh G., Branford, CT, UNITED STATES
Casman, Stacie J., North Haven, CT, UNITED STATES
Guo, Xiaojia (Sasha), Branford, CT, UNITED STATES
Edinger, Shlomit R., New Haven, CT, UNITED STATES
MacDougall, John R., Hamden, CT, UNITED STATES
Malyankar, Uriel M., Branford, CT, UNITED STATES
Patturajan, Meera, Branford, CT, UNITED STATES
Shimkets, Richard A., Guilford, CT, UNITED STATES
Pena, Carol E. A., New Haven, CT, UNITED STATES
Tchernev, Velizar T., Branford, CT, UNITED STATES
Zerhusen, Bryan D., Branford, CT, UNITED STATES
Millet, Isabelle, Milford, CT, UNITED STATES
Miller, Charles E., Guilford, CT, UNITED STATES
Lepley, Denise M., Branford, CT, UNITED STATES
Smithson, Glennda, Guilford, CT, UNITED STATES
Baumgartner, Jason C., New Haven, CT, UNITED STATES
Herrmann, John L., Guilford, CT, UNITED STATES
Peyman, John A., New Haven, CT, UNITED STATES
Gorman, Linda, Branford, CT, UNITED STATES
Mezes, Peter D., Old Lyme, CT, UNITED STATES
Kekuda, Ramesh, Norwalk, CT, UNITED STATES
Taupier, Raymond J., JR., East Haven, CT, UNITED STATES
Gerlach, Valerie, Branford, CT, UNITED STATES
Grosse, William M., Branford, CT, UNITED STATES
Liu, Xiaohong, Lexington, MA, UNITED STATES
Ellerman, Karen, Branford, CT, UNITED STATES
Rothenberg, Mark, Clinton, CT, UNITED STATES
Stone, David J., Guilford, CT, UNITED STATES
Burgess, Catherine E., Wethersfield, CT, UNITED STATES
PI US 2004005557 A1 20040108
AI US 2002-51874 A1 20020116 (10)
PRAI US 2001-261376P 20010116 (60)
US 2001-268595P 20010214 (60)
US 2001-325306P 20010927 (60)
US 2001-262587P 20010118 (60)
US 2001-272409P 20010228 (60)
US 2001-262454P 20010118 (60)
US 2001-276777P 20010316 (60)
US 2001-291672P 20010517 (60)
US 2001-330336P 20011018 (60)
US 2001-265530P 20010131 (60)
US 2001-345202P 20011109 (60)

DT Utility
FS APPLICATION
LN.CNT 16208

INCL INCLM: 435/006.000
INCLS: 435/069.100; 435/183.000; 435/320.100; 435/325.000; 530/350.000;
536/023.200
NCL NCLM: 435/006.000
NCLS: 435/069.100; 435/183.000; 435/320.100; 435/325.000; 530/350.000;
536/023.200
IC [7]
ICM: C12Q001-68
ICS: C07H021-04; C12N009-00; C12P021-02; C12N005-06; C07K014-435
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 13 OF 65 USPATFULL on STN
AN 2004:116712 USPATFULL
TI Nucleic acid encoding 15571, a GPCR-like molecule of the
secretin -like family
IN Hodge, Martin R., Arlington, MA, United States
Lloyd, Clare, London, UNITED KINGDOM
Weich, Nadine S., Brookline, MA, United States
PA Millennium Pharmaceuticals, Inc., Cambridge, MA, United States (U.S.
corporation)
PI US 6733990 B1 20040511
AI US 2000-631603 20000803 (9)
RLI Continuation-in-part of Ser. No. US 2000-515781, filed on 29 Feb 2000,
now abandoned
PRAI US 1999-146916P 19990803 (60)
DT Utility
FS GRANTED
LN.CNT 4954
INCL INCLM: 435/069.100
INCLS: 435/071.100; 435/071.200; 435/252.300; 435/254.110; 435/325.000;
435/471.000; 435/320.100; 536/023.500; 530/350.000
NCL NCLM: 435/069.100
NCLS: 435/071.100; 435/071.200; 435/252.300; 435/254.110; 435/320.100;
435/325.000; 435/471.000; 530/350.000; 536/023.500
IC [7]
ICM: C12N015-12
ICS: C12N005-10; C12N015-63
EXF 536/23.1; 536/23.5; 530/350; 435/69.1; 435/71.1; 435/71.2; 435/325;
435/320.1; 435/471; 435/252.3; 435/254.11
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 14 OF 65 USPATFULL on STN
AN 2003:318673 USPATFULL
TI 14400, 2838, 14618, 15334, 14274, 32164, 39404, 38911, 26904, 31237,
18057, 16405, 32705, 23224, 27423, 32700, 32712 and 12216, novel
seven-transmembrane proteins/G-protein coupled receptors
IN Glucksmann, Maria A., Lexington, MA, UNITED STATES
Weich, Nadine S., Brookline, MA, UNITED STATES
Hunter, John Joseph, Somerville, MA, UNITED STATES
White, David, Braintree, MA, UNITED STATES
MacBeth, Kyle J., Boston, MA, UNITED STATES
Williamson, Mark J., Saugus, MA, UNITED STATES
Meyers, Rachel E., Newton, MA, UNITED STATES
Chun, Miyoung, Belmont, MA, UNITED STATES
PA Millennium Pharmaceuticals, Inc. (U.S. corporation)
PI US 2003224417 A1 20031204
AI US 2003-400991 A1 20030327 (10)
RLI Continuation-in-part of Ser. No. US 2002-190469, filed on 5 Jul 2002,
PENDING Continuation of Ser. No. US 1999-439159, filed on 12 Nov 1999,
ABANDONED Division of Ser. No. US 1998-137063, filed on 20 Aug 1998,
ABANDONED Continuation-in-part of Ser. No. US 2002-167192, filed on 11
Jun 2002, PENDING Division of Ser. No. US 1999-420187, filed on 18 Oct
1999, ABANDONED Continuation-in-part of Ser. No. US 1998-173869, filed
on 16 Oct 1998, ABANDONED Continuation-in-part of Ser. No. US
2003-339056, filed on 9 Jan 2003, PENDING Continuation of Ser. No. US
1999-377429, filed on 19 Aug 1999, ABANDONED Continuation-in-part of
Ser. No. US 1998-136726, filed on 19 Aug 1998, ABANDONED
Continuation-in-part of Ser. No. US 2001-911583, filed on 24 Jul 2001,
ABANDONED Continuation-in-part of Ser. No. US 1999-476287, filed on 30
Dec 1999, ABANDONED Continuation-in-part of Ser. No. US 1999-475790,
filed on 30 Dec 1999, ABANDONED Continuation-in-part of Ser. No. US
2001-779448, filed on 8 Feb 2001, ABANDONED Continuation-in-part of Ser.

No. US 1999-347094, filed on 2 Jul 1999, ABANDONED Continuation-in-part
of Ser. No. US 2001-794257, filed on 27 Feb 2001, PENDING
Continuation-in-part of Ser. No. US 1999-448687, filed on 24 Nov 1999,
PENDING Continuation-in-part of Ser. No. US 1998-200302, filed on 25 Nov
1998, ABANDONED

PRAI US 2000-180986P 20000208 (60)
US 2000-185606P 20000229 (60)

DT Utility

FS APPLICATION

LN.CNT 10269

INCL INCLM: 435/006.000

INCLS: 435/007.100; 435/069.100; 435/320.100; 435/325.000; 530/350.000;
536/023.500; 514/012.000

NCL NCLM: 435/006.000

NCLS: 435/007.100; 435/069.100; 435/320.100; 435/325.000; 530/350.000;
536/023.500; 514/012.000

IC [7]

ICM: C12Q001-68

ICS: G01N033-53; C07K014-705; C12P021-02; C12N005-06; A61K038-17

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 15 OF 65 USPATFULL on STN

AN 2003:306426 USPATFULL

TI Novel 18636, 2466, 43238, 1983, 52881, 2398, 45449, 50289, 52872 and
26908 molecules and uses therefor

IN Glucksmann, Maria A., Lexington, MA, UNITED STATES

Silos-Santiago, Inmaculada, Del Mar, CA, UNITED STATES

Carroll, Joseph M., Cambridge, MA, UNITED STATES

Galvin, Katherine M., Jamaica Plain, MA, UNITED STATES

PA Millennium Pharmaceuticals, Inc. (U.S. corporation)

PI US 2003215860 A1 20031120

AI US 2003-407079 A1 20030403 (10)

RLI Continuation-in-part of Ser. No. US 2002-226102, filed on 22 Aug 2002,
PENDING Continuation-in-part of Ser. No. US 2002-225094, filed on 21 Aug
2002, PENDING Continuation-in-part of Ser. No. US 2002-272417, filed on
15 Oct 2002, PENDING Continuation of Ser. No. US 2000-715790, filed on
17 Nov 2000, ABANDONED Continuation-in-part of Ser. No. US 2002-282837,
filed on 29 Oct 2002, PENDING Continuation of Ser. No. US 2001-796338,
filed on 28 Feb 2001, ABANDONED Continuation-in-part of Ser. No. US
2001-863200, filed on 22 May 2001, ABANDONED

PRAI US 2001-314041P 20010822 (60)

US 2001-314185P 20010822 (60)

US 2000-191845P 20000324 (60)

US 2000-186059P 20000229 (60)

US 2000-206019P 20000522 (60)

DT Utility

FS APPLICATION

LN.CNT 12157

INCL INCLM: 435/006.000

INCLS: 435/069.100; 435/320.100; 435/325.000; 530/350.000; 530/388.100;
536/023.100

NCL NCLM: 435/006.000

NCLS: 435/069.100; 435/320.100; 435/325.000; 530/350.000; 530/388.100;
536/023.100

IC [7]

ICM: C12Q001-68

ICS: C07H021-04; C07K014-47; C12P021-02; C12N005-06; C07K016-18

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 16 OF 65 USPATFULL on STN

AN 2003:237885 USPATFULL

TI Novel seven-transmembrane proteins/G-protein coupled receptors

IN Glucksmann, Maria Alexandra, Lexington, MA, UNITED STATES

Silos-Santiago, Inmaculada, Cambridge, MA, UNITED STATES

PA Millennium Pharmaceuticals, Inc. (U.S. corporation)

PI US 2003166042 A1 20030904

AI US 2001-781880 A1 20010212 (9)

PRAI US 2000-182061P 20000211 (60)

DT Utility

FS APPLICATION

LN.CNT 4981

INCL INCLM: 435/069.100

NCL INCLS: 435/320.100; 435/325.000; 435/183.000; 536/023.200
NCLM: 435/069.100
NCLS: 435/320.100; 435/325.000; 435/183.000; 536/023.200
IC [7]
ICM: C12P021-02
ICS: C12N005-06; C07H021-04; C12N009-00
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 17 OF 65 USPATFULL on STN
AN 2003:232047 USPATFULL
TI 32164 protein, a novel seven transmembrane protein
IN Glucksmann, Maria Alexandra, Lexington, MA, UNITED STATES
Weich, Nadine S., Brookline, MA, UNITED STATES
PA Millennium Pharmaceuticals, Inc. (U.S. corporation)
PI US 2003162247 A1 20030828
AI US 2001-911583 A1 20010724 (9)
RLI Continuation-in-part of Ser. No. US 1999-476287, filed on 30 Dec 1999,
PENDING
PRAI WO 2000-US34973 20001222
DT Utility
FS APPLICATION
LN.CNT 3764
INCL INCLM: 435/069.100
INCLS: 530/350.000; 435/320.100; 435/325.000; 536/023.500
NCL NCLM: 435/069.100
NCLS: 530/350.000; 435/320.100; 435/325.000; 536/023.500
IC [7]
ICM: C07K014-705
ICS: C07H021-04; C12P021-02; C12N005-06
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 18 OF 65 USPATFULL on STN
AN 2003:231972 USPATFULL
TI 2871 receptor, a novel G-protein coupled receptor
IN Glucksmann, Maria Alexandra, Lexington, MA, UNITED STATES
Hodge, Martin R., Arlington, MA, UNITED STATES
Hunter, John J., Somerville, MA, UNITED STATES
Rudolph-Owen, Laura, Jamaica Plain, MA, UNITED STATES
Weich, Nadine S., Brookline, MA, UNITED STATES
PI US 2003162172 A1 20030828
AI US 2000-741783 A1 20001218 (9)
RLI Continuation-in-part of Ser. No. US 1999-464685, filed on 16 Dec 1999,
PENDING Continuation-in-part of Ser. No. US 1999-324465, filed on 2 Jun
1999, PENDING Continuation-in-part of Ser. No. US 1998-88857, filed on 2
Jun 1998, ABANDONED
DT Utility
FS APPLICATION
LN.CNT 3226
INCL INCLM: 435/006.000
INCLS: 536/023.200; 435/007.100
NCL NCLM: 435/006.000
NCLS: 536/023.200; 435/007.100
IC [7]
ICM: C12Q001-68
ICS: G01N033-53; C07H021-04
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 19 OF 65 USPATFULL on STN
AN 2003:213811 USPATFULL
TI G protein coupled receptor agonists and antagonists and methods of
activating and inhibiting G protein coupled receptors using the same
IN Kuliopoulos, Athan, Winchester, MA, UNITED STATES
Covic, Lidija, Somerville, MA, UNITED STATES
PI US 2003148449 A1 20030807
AI US 2002-251703 A1 20020920 (10)
RLI Continuation-in-part of Ser. No. US 2001-841091, filed on 23 Apr 2001,
PENDING
PRAI US 2000-198993P 20000421 (60)
DT Utility
FS APPLICATION
LN.CNT 2816
INCL INCLM: 435/069.100

NCL INCLS: 435/320.100; 435/325.000; 530/350.000; 514/012.000; 514/558.000
NCLM: 435/069.100
NCLS: 435/320.100; 435/325.000; 530/350.000; 514/012.000; 514/558.000
IC [7]
ICM: A61K038-17
ICS: C12P021-02; C12N005-06; C07K014-705; A61K031-20
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 20 OF 65 USPATFULL on STN
AN 2003:213643 USPATFULL
TI 65499 and 58875, novel seven transmembrane receptors and uses thereof
IN Glucksmann, Maria A., Lexington, MA, UNITED STATES
PI US 2003148281 A1 20030807
AI US 2001-971269 A1 20011003 (9)
PRAI US 2000-237700P 20001005 (60)
DT Utility
FS APPLICATION
LN.CNT 5168
INCL INCLM: 435/006.000
NCL INCLS: 435/069.100; 435/320.100; 435/325.000; 530/350.000; 536/023.500
NCLM: 435/006.000
NCLS: 435/069.100; 435/320.100; 435/325.000; 530/350.000; 536/023.500
IC [7]
ICM: C12Q001-68
ICS: C07H021-04; C12P021-02; C12N005-06; C07K014-705
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 21 OF 65 USPATFULL on STN
AN 2003:200905 USPATFULL
TI Novel G protein-coupled receptor family members, human thioredoxin family members, human leucine-rich repeat family members, and human ringfinger family member
IN Glucksmann, Maria Alexandra, Lexington, MA, UNITED STATES
Silos-Santiago, Inmaculada, Jamaica Plain, MA, UNITED STATES
Galvin, Katherine M., Jamaica Plain, MA, UNITED STATES
Weich, Nadine, Brookline, MA, UNITED STATES
Curtis, Rory A. J., Framingham, MA, UNITED STATES
Bandaru, Rajasekhar, Watertown, MA, UNITED STATES
Kapeller-Libermann, Rosana, Chestnut Hill, MA, UNITED STATES
PI US 2003138890 A1 20030724
AI US 2002-145586 A1 20020514 (10)
RLI Continuation-in-part of Ser. No. US 2001-796338, filed on 28 Feb 2001, PENDING Continuation-in-part of Ser. No. WO 2001-US6543, filed on 28 Feb 2001, PENDING
PRAI WO 2001-US6057 20010223
WO 2001-US23152 20010723
WO 2001-US40476 20010409
WO 2001-US7139 20010305
WO 2001-US19544 20010615
WO 2001-US29967 20010925
WO 2001-US9470 20010323
WO 2001-US10380 20010330
WO 2001-US29968 20010925
US 2000-186059P 20000229 (60)
US 2000-220042P 20000721 (60)
US 2000-187447P 20000307 (60)
US 2000-211673P 20000615 (60)
US 2000-235049P 20000925 (60)
US 2000-191863P 20000324 (60)
US 2000-193919P 20000331 (60)
US 2000-235032P 20000925 (60)
DT Utility
FS APPLICATION
LN.CNT 51652
INCL INCLM: 435/069.100
INCLS: 435/320.100; 435/325.000; 530/350.000; 536/023.500
NCL NCLM: 435/069.100
NCLS: 435/320.100; 435/325.000; 530/350.000; 536/023.500
IC [7]
ICM: C07K014-705
ICS: C12P021-02; C12N005-06; C07H021-04
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 22 OF 65 USPATFULL on STN
AN 2003:187854 USPATFULL
TI 14274 receptor, a novel G-protein coupled receptor related to the EDG receptor family
IN Glucksmann, Maria Alexandra, Lexington, MA, UNITED STATES
Weich, Nadine S., Brookline, MA, UNITED STATES
Hunter, John J., Somerville, MA, UNITED STATES
PA Millennium Pharmaceuticals, Inc. (U.S. corporation)
PI US 2003129644 A1 20030710
AI US 2003-339056 A1 20030109 (10)
RLI Continuation of Ser. No. US 1999-377429, filed on 19 Aug 1999, ABANDONED
Continuation-in-part of Ser. No. US 1998-136726, filed on 19 Aug 1998,
PENDING
DT Utility
FS APPLICATION
LN.CNT 3157
INCL INCLM: 435/006.000
INCLS: 435/069.100; 435/320.100; 435/325.000; 530/350.000; 530/388.220;
536/023.500; 435/007.100
NCL NCLM: 435/006.000
NCLS: 435/069.100; 435/320.100; 435/325.000; 530/350.000; 530/388.220;
536/023.500; 435/007.100
IC [7]
ICM: C12Q001-68
ICS: G01N033-53; C07H021-04; C12P021-02; C12N005-06; C07K014-705
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 23 OF 65 USPATFULL on STN
AN 2003:180840 USPATFULL
TI 43238, a novel G protein-coupled receptor and uses therefor
IN Glucksmann, Maria, Newton, MA, UNITED STATES
Silos-Santiago, Inmaculada, Cambridge, MA, UNITED STATES
PI US 2003124670 A1 20030703
AI US 2002-272417 A1 20021015 (10)
RLI Continuation of Ser. No. US 2000-715790, filed on 17 Nov 2000, ABANDONED
PRAI US 2000-191845P 20000324 (60)
DT Utility
FS APPLICATION
LN.CNT 4070
INCL INCLM: 435/069.100
INCLS: 435/320.100; 435/325.000; 530/350.000; 536/023.500; 530/388.220;
435/006.000
NCL NCLM: 435/069.100
NCLS: 435/320.100; 435/325.000; 530/350.000; 536/023.500; 530/388.220;
435/006.000
IC [7]
ICM: C12Q001-68
ICS: C07H021-04; C12P021-02; C12N005-06; C07K014-705
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 24 OF 65 USPATFULL on STN
AN 2003:140941 USPATFULL
TI 21132, a human G-protein coupled receptor family member and uses
therefor
IN Carroll, Joseph M., Cambridge, MA, UNITED STATES
PA Millennium Pharmaceuticals, Inc. (U.S. corporation)
PI US 2003096783 A1 20030522
AI US 2002-266886 A1 20021008 (10)
PRAI US 2001-328345P 20011010 (60)
DT Utility
FS APPLICATION
LN.CNT 4722
INCL INCLM: 514/044.000
INCLS: 514/012.000; 514/001.000; 424/146.100; 435/006.000; 435/007.100
NCL NCLM: 514/044.000
NCLS: 514/012.000; 514/001.000; 424/146.100; 435/006.000; 435/007.100
IC [7]
ICM: A61K048-00
ICS: A61K038-17; A61K031-00; C12Q001-68; G01N033-53; A61K039-395
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 25 OF 65 USPATFULL on STN
AN 2003:140506 USPATFULL
TI Polynucleotides encoding two novel human G-protein coupled receptors, HGPRBMY28 and HGPRBMY29, and splice variants thereof
IN Feder, John N., Belle Mead, NJ, UNITED STATES
Ramanathan, Chandra S., Wallingford, CT, UNITED STATES
Mintier, Gabriel A., Hightstown, NJ, UNITED STATES
Bol, David, Langhorne, PA, UNITED STATES
Hawken, Donald R., Lawrenceville, NJ, UNITED STATES
PI US 2003096347 A1 20030522
AI US 2002-120604 A1 20020411 (10)
PRAI US 2001-283145P 20010411 (60)
US 2001-283161P 20010411 (60)
US 2001-288468P 20010503 (60)
US 2001-300619P 20010625 (60)
DT Utility
FS APPLICATION
LN.CNT 20308
INCL INCLM: 435/069.100
INCLS: 435/320.100; 435/325.000; 530/350.000; 536/023.500
NCL NCLM: 435/069.100
NCLS: 435/320.100; 435/325.000; 530/350.000; 536/023.500
IC [7]
ICM: C12P021-02
ICS: C12N005-06; C07K014-705; C07H021-04
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 26 OF 65 USPATFULL on STN
AN 2003:127069 USPATFULL
TI 18636 receptor, a human G-protein-coupled receptor (GPCR) family member, and uses therefor
IN Carroll, Joseph M., Cambridge, MA, UNITED STATES
PA Millennium Pharmaceuticals, Inc. (U.S. corporation)
PI US 2003087281 A1 20030508
AI US 2002-226102 A1 20020822 (10)
PRAI US 2001-314041P 20010822 (60)
DT Utility
FS APPLICATION
LN.CNT 4612
INCL INCLM: 435/006.000
INCLS: 435/007.100
NCL NCLM: 435/006.000
NCLS: 435/007.100
IC [7]
ICM: C12Q001-68
ICS: G01N033-53
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 27 OF 65 USPATFULL on STN
AN 2003:127037 USPATFULL
TI 93870, a human G-protein coupled receptor and uses therefor
IN Glucksmann, Maria Alexandra, Lexington, MA, UNITED STATES
PA Millennium Pharmaceuticals, Inc. (U.S. corporation)
PI US 2003087249 A1 20030508
AI US 2002-85233 A1 20020228 (10)
PRAI US 2001-272677P 20010301 (60)
DT Utility
FS APPLICATION
LN.CNT 4506
INCL INCLM: 435/006.000
INCLS: 435/069.100; 435/320.100; 435/325.000; 530/350.000; 536/023.500
NCL NCLM: 435/006.000
NCLS: 435/069.100; 435/320.100; 435/325.000; 530/350.000; 536/023.500
IC [7]
ICM: C12Q001-68
ICS: C07H021-04; C12P021-02; C12N005-06; C07K014-705
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 28 OF 65 USPATFULL on STN
AN 2003:93040 USPATFULL
TI 2466 receptor, a human G-protein-coupled receptor (GPCR) family member and uses therefor

IN Silos-Santiago, Inmaculada, Jamaica Plain, MA, UNITED STATES
PA Millennium Pharmaceuticals, Inc. (U.S. corporation)
PI US 2003064399 A1 20030403
AI US 2002-225094 A1 20020821 (10)
PRAI US 2001-314185P 20010822 (60)
DT Utility
FS APPLICATION
LN.CNT 4590
INCL INCLM: 435/006.000
INCLS: 435/007.100
NCL NCLM: 435/006.000
NCLS: 435/007.100
IC [7]
ICM: C12Q001-68
ICS: G01N033-53

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 29 OF 65 USPATFULL on STN
AN 2003:57488 USPATFULL
TI Novel G-protein coupled receptors
IN Glucksmann, Maria Alexandra, Lexington, MA, UNITED STATES
Weich, Nadine S., Brookline, MA, UNITED STATES
PA Millennium Pharmaceuticals, Inc. (U.S. corporation)
PI US 2003040052 A1 20030227
AI US 2002-167192 A1 20020611 (10)
RLI Division of Ser. No. US 1999-420187, filed on 18 Oct 1999, PENDING
Continuation-in-part of Ser. No. US 1998-173869, filed on 16 Oct 1998,
PENDING
DT Utility
FS APPLICATION
LN.CNT 4725
INCL INCLM: 435/069.100
INCLS: 435/320.100; 435/325.000; 530/350.000; 536/023.500
NCL NCLM: 435/069.100
NCLS: 435/320.100; 435/325.000; 530/350.000; 536/023.500
IC [7]
ICM: C07K014-705
ICS: C07H021-04; C12P021-02; C12N005-06

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 30 OF 65 USPATFULL on STN
AN 2003:23699 USPATFULL
TI Novel nucleic acid sequences encoding G-protein coupled receptors
IN Glucksmann, Maria Alexandra, Lexington, MA, UNITED STATES
Hodge, Martin R., Lexington, MA, UNITED STATES
Hunter, John J., Somerville, MA, UNITED STATES
Rudolph-Owen, Laura A., Jamaica Plain, MA, UNITED STATES
Silos-Santiago, Inmaculada, Jamaica Plain, MA, UNITED STATES
Weich, Nadine S., Brookline, MA, UNITED STATES
PA Millennium Pharmaceuticals, Inc. (U.S. corporation)
PI US 2003017539 A1 20030123
AI US 2002-165844 A1 20020607 (10)
RLI Continuation-in-part of Ser. No. US 2000-741783, filed on 18 Dec 2000,
PENDING Continuation-in-part of Ser. No. US 1999-464685, filed on 16 Dec
1999, PENDING Continuation-in-part of Ser. No. US 1999-324465, filed on
2 Jun 1999, PENDING Continuation-in-part of Ser. No. US 1998-88857,
filed on 2 Jun 1998, ABANDONED Continuation-in-part of Ser. No. US
1999-383745, filed on 26 Aug 1999, PENDING Continuation-in-part of Ser.
No. US 1998-145745, filed on 2 Sep 1998, PENDING Continuation-in-part of
Ser. No. US 1999-234923, filed on 21 Jan 1999, PENDING
Continuation-in-part of Ser. No. US 1999-340880, filed on 28 Jun 1999,
PENDING
DT Utility
FS APPLICATION
LN.CNT 11690
INCL INCLM: 435/069.100
INCLS: 435/320.100; 435/325.000; 530/350.000; 536/023.500
NCL NCLM: 435/069.100
NCLS: 435/320.100; 435/325.000; 530/350.000; 536/023.500
IC [7]
ICM: C07K014-705
ICS: C07H021-04; C12P021-02; C12N005-06

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 31 OF 65 CIN COPYRIGHT 2005 ACS on STN
AN 32(50):23624F CIN
TI Patents: applications published 2 April 2003
SO Manuf. Chem., Oct 2003 (20031000), 74(10), p. 78. ISSN: 0262-4230; CODEN:
MCHMDI.
LA English

L14 ANSWER 32 OF 65 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 3
AN 2002:31273 CAPLUS
DN 136:80339

TI Use of ***secretin*** - ***receptor*** ligands in treatment of
cystic fibrosis (CF) and ***chronic*** ***obstructive***
pulmonary ***disease*** (COPD)

IN Davis, Richard Jon; Page, Keith John

PA Pharmagene Laboratories Ltd., UK

SO PCT Int. Appl., 50 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | WO 2002002134 | A1 | 20020110 | WO 2001-GB2989 | 20010704 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,
UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| | US 2002142956 | A1 | 20021003 | US 2001-897412 | 20010703 |
| | US 6780839 | B2 | 20040824 | | |
| | CA 2412839 | AA | 20020110 | CA 2001-2412839 | 20010704 |
| | AU 2001067729 | A5 | 20020114 | AU 2001-67729 | 20010704 |
| | GB 2368795 | A1 | 20020515 | GB 2002-416 | 20010704 |
| | GB 2368795 | B2 | 20040804 | | |
| | EP 1296708 | A1 | 20030402 | EP 2001-945514 | 20010704 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| | JP 2004501977 | T2 | 20040122 | JP 2002-506755 | 20010704 |
| | GB 2397522 | A1 | 20040728 | GB 2004-9577 | 20010704 |
| | GB 2397522 | B2 | 20040922 | | |
| | NZ 523303 | A | 20041126 | NZ 2001-523303 | 20010704 |
| | NO 2002006119 | A | 20030225 | NO 2002-6119 | 20021219 |
| | ZA 2002010268 | A | 20031028 | ZA 2002-10268 | 20021219 |
| | US 2004191238 | A1 | 20040930 | US 2004-822677 | 20040413 |
| PRAI | GB 2000-16441 | A | 20000704 | | |
| | US 2001-897412 | A3 | 20010703 | | |
| | GB 2002-416 | A3 | 20010704 | | |
| | WO 2001-GB2989 | W | 20010704 | | |

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 33 OF 65 IFIPAT COPYRIGHT 2005 IFI on STN DUPLICATE 4
AN 10199251 IFIPAT;IFIUDB;IFICDB
TI USE OF ***SECRETIN*** - ***RECEPTOR*** LIGANDS IN TREATMENT OF
CYSTIC FIBROSIS (CF) AND ***CHRONIC*** ***OBSTRUCTIVE***
PULMONARY ***DISEASE*** (COPD); ADMINISTERING AN AGENT WHICH
TRIGGERS ANION EFFLUX IN RESPIRATORY TISSUE VIA THE ACTIVATION OF A
SECRETIN ***RECEPTOR*** FOR THERAPY OF CYSTIC FIBROSIS
IN Davis Richard J (GB); Page Keith J (GB)
PA Unassigned Or Assigned To Individual (68000)
PI US 2002142956 A1 20021003
AI US 2001-897412 20010703
PRAI GB 2000-164418 20000704
FI US 2002142956 20021003
DT Utility; Patent Application - First Publication
FS CHEMICAL

APPLICATION
CLMN 10
GI 9 Figure(s).
FIG. 1 shows an alignment of human, porcine and canine ***secretin*** .
FIG. 2 shows differential expression of mRNA of the ***secretin*** ***receptor*** in control and CF lung regions.
FIG. 3 shows mRNA expression of GAPDH in control and lung CF regions.
FIG. 4 shows differential expression of mRNA of the ***secretin*** ***receptor*** in control and CF lung regions from a sample of 16 control and 25 CF tissue donors.
FIG. 5 shows that ***secretin*** stimulates ionic movement in the nonCF tertiary bronchus.
FIG. 6 shows that ***secretin*** stimulates non-CTFR dependent ionic movement in confluent monolayers of primary human tertiary bronchial epithelial cells derived from non-CF donors.
FIG. 7 shows that ***secretin*** stimulates ionic movement in the human CF tertiary bronchus.
FIG. 8 shows the effect of ***secretin*** on chloride ion efflux in primary human tertiary bronchial epithelial cells derived from non CF donors.
FIG. 9 shows the levels of NeuroD mRNA in tertiary bronchus and lung parenchyma of CF patients.

L14 ANSWER 34 OF 65 USPATFULL on STN
AN 2002:213774 USPATFULL
TI 14275 receptor, a novel G-protein coupled receptor related to the EDGreceptor family
IN Glucksmann, Maria Alexandra, Lexington, MA, UNITED STATES
Hodge, Martin R., Arlington, MA, UNITED STATES
PA Millennium Pharmaceuticals, Inc. (U.S. corporation)
PI US 2002115150 A1 20020822
AI US 2001-7399 A1 20011105 (10)
RLI Continuation of Ser. No. US 1999-390039, filed on 3 Sep 1999, ABANDONED
Continuation-in-part of Ser. No. US 1998-146416, filed on 3 Sep 1998,
ABANDONED
DT Utility
FS APPLICATION
LN.CNT 4004
INCL INCLM: 435/069.100
INCLS: 435/325.000; 435/320.100; 530/350.000; 536/023.500
NCL NCLM: 435/069.100
NCLS: 435/325.000; 435/320.100; 530/350.000; 536/023.500
IC [7]
ICM: C07K014-705
ICS: C07H021-04; C12P021-02; C12N005-06
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 35 OF 65 USPATFULL on STN
AN 2002:78404 USPATFULL
TI 18057 protein, a novel seven transmembrane protein
IN Glucksmann, Maria Alexandra, Lexington, MA, UNITED STATES
MacBeth, Kyle J., Boston, MA, UNITED STATES
Williamson, Mark, Saugus, MA, UNITED STATES
PA Millennium Pharmaceuticals, Inc. (U.S. corporation)
PI US 2002042058 A1 20020411
AI US 2001-779448 A1 20010208 (9)
PRAI US 2000-180986P 20000208 (60)
DT Utility
FS APPLICATION
LN.CNT 4184
INCL INCLM: 435/006.000
NCL NCLM: 435/006.000
IC [7]
ICM: C12Q001-68
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 36 OF 65 USPATFULL on STN
AN 2002:72625 USPATFULL
TI 26908 novel G protein-coupled receptors and uses therefor
IN Glucksmann, Maria A., Lexington, MA, UNITED STATES
PI US 2002039762 A1 20020404
AI US 2001-863200 A1 20010522 (9)

PRAI US 2000-206019P 20000522 (60)
DT Utility
FS APPLICATION
LN.CNT 4248
INCL INCLM: 435/069.100
INCLS: 435/325.000; 435/320.100; 530/350.000; 536/023.200
NCL NCLM: 435/069.100
NCLS: 435/325.000; 435/320.100; 530/350.000; 536/023.200
IC [7]
ICM: C07K014-705
ICS: C12P021-02; C12N005-06; C07H021-04
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 37 OF 65 USPATFULL on STN
AN 2002:346979 USPATFULL
TI Composition for the detection of signaling pathway gene expression
IN Au-Young, Janice, Berkeley, CA, United States
Seilhamer, Jeffrey J., Los Altos Hills, CA, United States
PA Incyte Genomics, Inc., Palo Alto, CA, United States (U.S. corporation)
PI US 6500938 B1 20021231
AI US 1998-16434 19980130 (9)
DT Utility
FS GRANTED
LN.CNT 6180
INCL INCLM: 536/023.100
INCLS: 422/050.000; 422/068.100; 435/006.000; 436/501.000; 536/024.100;
536/024.300; 536/024.310; 536/024.320; 536/024.330
NCL NCLM: 536/023.100
NCLS: 422/050.000; 422/068.100; 435/006.000; 436/501.000; 536/024.100;
536/024.300; 536/024.310; 536/024.320; 536/024.330
IC [7]
ICM: C07H021-00
ICS: C07H021-04; C12Q001-68
EXF 435/6; 435/69.1; 422/50; 422/68.1; 436/501; 536/23.1; 536/24.1;
536/24.3-24.33
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 38 OF 65 USPATFULL on STN
AN 2001:212136 USPATFULL
TI 39406 protein, a novel seven transmembrane protein
IN Glucksmann, Maria Alexandra, Lexington, MA, United States
Galvin, Katherine M., Jamaica Plain, MA, United States
PA Millennium Pharmaceuticals, Inc (U.S. corporation)
PI US 2001044130 A1 20011122
AI US 2001-779239 A1 20010208 (9)
PRAI US 2000-180912P 20000208 (60)
DT Utility
FS APPLICATION
LN.CNT 4199
INCL INCLM: 435/069.100
INCLS: 435/325.000; 536/023.500; 530/350.000
NCL NCLM: 435/069.100
NCLS: 435/325.000; 536/023.500; 530/350.000
IC [7]
ICM: C12P021-02
ICS: C12N005-06; C07H021-04; C07K014-705
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 39 OF 65 DGENE COPYRIGHT 2005 The Thomson Corp on STN
AN AAI72394 DNA DGENE
TI Use of a ***secretin*** ***receptor*** ligand in a medicament for
the treatment of cystic fibrosis -
IN Davis R J; Page K J
PA (PHAR-N) PHARMAGENE LAB LTD.
PI WO 2002002134 A1 20020110 50p
AI WO 2001-GB2989 20010704
PRAI GB 2000-16441 20000704
DT Patent
LA English
OS 2002-171615 [22]
DESC BETA2/NeuroD probe.

L14 ANSWER 40 OF 65 DGENE COPYRIGHT 2005 The Thomson Corp on STN
AN AAI72393 DNA DGENE
TI Use of a ***secretin*** ***receptor*** ligand in a medicament for
the treatment of cystic fibrosis -
IN Davis R J; Page K J
PA (PHAR-N) PHARMAGENE LAB LTD.
PI WO 2002002134 A1 20020110 50p
AI WO 2001-GB2989 20010704
PRAI GB 2000-16441 20000704
DT Patent
LA English
OS 2002-171615 [22]
DESC BETA2/NeuroD reverse primer.

L14 ANSWER 41 OF 65 DGENE COPYRIGHT 2005 The Thomson Corp on STN
AN AAI72392 DNA DGENE
TI Use of a ***secretin*** ***receptor*** ligand in a medicament for
the treatment of cystic fibrosis -
IN Davis R J; Page K J
PA (PHAR-N) PHARMAGENE LAB LTD.
PI WO 2002002134 A1 20020110 50p
AI WO 2001-GB2989 20010704
PRAI GB 2000-16441 20000704
DT Patent
LA English
OS 2002-171615 [22]
DESC BETA2/NeuroD forward primer.

L14 ANSWER 42 OF 65 DGENE COPYRIGHT 2005 The Thomson Corp on STN
AN AAI72391 DNA DGENE
TI Use of a ***secretin*** ***receptor*** ligand in a medicament for
the treatment of cystic fibrosis -
IN Davis R J; Page K J
PA (PHAR-N) PHARMAGENE LAB LTD.
PI WO 2002002134 A1 20020110 50p
AI WO 2001-GB2989 20010704
PRAI GB 2000-16441 20000704
DT Patent
LA English
OS 2002-171615 [22]
DESC GAPDH probe.

L14 ANSWER 43 OF 65 DGENE COPYRIGHT 2005 The Thomson Corp on STN
AN AAI72390 DNA DGENE
TI Use of a ***secretin*** ***receptor*** ligand in a medicament for
the treatment of cystic fibrosis -
IN Davis R J; Page K J
PA (PHAR-N) PHARMAGENE LAB LTD.
PI WO 2002002134 A1 20020110 50p
AI WO 2001-GB2989 20010704
PRAI GB 2000-16441 20000704
DT Patent
LA English
OS 2002-171615 [22]
DESC GAPDH reverse primer.

L14 ANSWER 44 OF 65 DGENE COPYRIGHT 2005 The Thomson Corp on STN
AN AAI72389 DNA DGENE
TI Use of a ***secretin*** ***receptor*** ligand in a medicament for
the treatment of cystic fibrosis -
IN Davis R J; Page K J
PA (PHAR-N) PHARMAGENE LAB LTD.
PI WO 2002002134 A1 20020110 50p
AI WO 2001-GB2989 20010704
PRAI GB 2000-16441 20000704
DT Patent
LA English
OS 2002-171615 [22]
DESC GAPDH forward primer.

L14 ANSWER 45 OF 65 DGENE COPYRIGHT 2005 The Thomson Corp on STN
AN AAI72388 DNA DGENE

TI Use of a ***secretin*** ***receptor*** ligand in a medicament for
the treatment of cystic fibrosis -
IN Davis R J; Page K J
PA (PHAR-N) PHARMAGENE LAB LTD.
PI WO 2002002134 A1 20020110 50p
AI WO 2001-GB2989 20010704
PRAI GB 2000-16441 20000704
DT Patent
LA English
OS 2002-171615 [22]
DESC ***Secretin*** ***receptor*** probe.

L14 ANSWER 46 OF 65 DGENE COPYRIGHT 2005 The Thomson Corp on STN
AN AAI72387 DNA DGENE
TI Use of a ***secretin*** ***receptor*** ligand in a medicament for
the treatment of cystic fibrosis -
IN Davis R J; Page K J
PA (PHAR-N) PHARMAGENE LAB LTD.
PI WO 2002002134 A1 20020110 50p
AI WO 2001-GB2989 20010704
PRAI GB 2000-16441 20000704
DT Patent
LA English
OS 2002-171615 [22]
DESC ***Secretin*** ***receptor*** reverse primer.

L14 ANSWER 47 OF 65 DGENE COPYRIGHT 2005 The Thomson Corp on STN
AN AAI72386 DNA DGENE
TI Use of a ***secretin*** ***receptor*** ligand in a medicament for
the treatment of cystic fibrosis -
IN Davis R J; Page K J
PA (PHAR-N) PHARMAGENE LAB LTD.
PI WO 2002002134 A1 20020110 50p
AI WO 2001-GB2989 20010704
PRAI GB 2000-16441 20000704
DT Patent
LA English
OS 2002-171615 [22]
DESC ***Secretin*** ***receptor*** forward primer.

L14 ANSWER 48 OF 65 GENBANK.RTM. COPYRIGHT 2005 on STN

LOCUS (LOC): AR567815 GenBank (R)
GenBank ACC. NO. (GBN): AR567815
GenBank VERSION (VER): AR567815.1 GI:53985692
CAS REGISTRY NO. (RN): 760797-68-0
SEQUENCE LENGTH (SQL): 21
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 8 Oct 2004
DEFINITION (DEF): Sequence 9 from patent US 6780839.
SOURCE: Unknown.
ORGANISM (ORGN): Unknown.
Unclassified
REFERENCE:
AUTHOR (AU): Davis,R.J.; Page,K.J.
TITLE (TI): Use of ***secretin*** - ***receptor*** ligands in
treatment of cystic fibrosis (CF) and ***chronic***
obstructive ***pulmonary*** ***disease***
(COPD)
JOURNAL (SO): Patent: US 6780839-A 9 24-AUG-2004;

FEATURES (FEAT):

| Feature Key | Location | Qualifier |
|-------------|----------|--|
| source | 1..21 | /organism="unknown"
/mol-type="genomic DNA" |

SEQUENCE (SEQ):
1 agcaaggcac caccttgcgc a

L14 ANSWER 49 OF 65 GENBANK.RTM. COPYRIGHT 2005 on STN

LOCUS (LOC) : AR567814 GenBank (R)
GenBank ACC. NO. (GBN) : AR567814
GenBank VERSION (VER) : AR567814.1 GI:53985691
CAS REGISTRY NO. (RN) : 760797-67-9
SEQUENCE LENGTH (SQL) : 23
MOLECULE TYPE (CI) : DNA; linear
DIVISION CODE (CI) : Patent
DATE (DATE) : 8 Oct 2004
DEFINITION (DEF) : Sequence 8 from patent US 6780839.
SOURCE: Unknown.
ORGANISM (ORGN) : Unknown.
Unclassified
REFERENCE:
AUTHOR (AU) : Davis,R.J.; Page,K.J.
TITLE (TI) : Use of ***secretin*** - ***receptor*** ligands in
treatment of cystic fibrosis (CF) and ***chronic***
obstructive ***pulmonary*** ***disease***
(COPD)
JOURNAL (SO) : Patent: US 6780839-A 8 24-AUG-2004;

FEATURES (FEAT):

| Feature Key | Location | Qualifier |
|-------------|----------|--|
| source | 1..23 | /organism="unknown"
/mol-type="genomic DNA" |

SEQUENCE (SEQ):
1 gtctcgattt tggacagacct ctg

L14 ANSWER 50 OF 65 GENBANK.RTM. COPYRIGHT 2005 on STN

LOCUS (LOC) : AR567813 GenBank (R)
GenBank ACC. NO. (GBN) : AR567813
GenBank VERSION (VER) : AR567813.1 GI:53985690
CAS REGISTRY NO. (RN) : 760797-66-8
SEQUENCE LENGTH (SQL) : 17
MOLECULE TYPE (CI) : DNA; linear
DIVISION CODE (CI) : Patent
DATE (DATE) : 8 Oct 2004
DEFINITION (DEF) : Sequence 7 from patent US 6780839.
SOURCE: Unknown.
ORGANISM (ORGN) : Unknown.
Unclassified
REFERENCE:
AUTHOR (AU) : Davis,R.J.; Page,K.J.
TITLE (TI) : Use of ***secretin*** - ***receptor*** ligands in
treatment of cystic fibrosis (CF) and ***chronic***
obstructive ***pulmonary*** ***disease***
(COPD)
JOURNAL (SO) : Patent: US 6780839-A 7 24-AUG-2004;

FEATURES (FEAT):

| Feature Key | Location | Qualifier |
|-------------|----------|--|
| source | 1..17 | /organism="unknown"
/mol-type="genomic DNA" |

SEQUENCE (SEQ):
1 gaacgcggcg ctagaca

L14 ANSWER 51 OF 65 GENBANK.RTM. COPYRIGHT 2005 on STN

LOCUS (LOC) : AR567812 GenBank (R)
GenBank ACC. NO. (GBN) : AR567812
GenBank VERSION (VER) : AR567812.1 GI:53985689
CAS REGISTRY NO. (RN) : 760797-65-7
SEQUENCE LENGTH (SQL) : 20
MOLECULE TYPE (CI) : DNA; linear
DIVISION CODE (CI) : Patent
DATE (DATE) : 8 Oct 2004
DEFINITION (DEF) : Sequence 6 from patent US 6780839.

SOURCE: Unknown.
ORGANISM (ORGN): Unknown.
Unclassified
REFERENCE:
AUTHOR (AU): 1 (bases 1 to 20)
Davis,R.J.; Page,K.J.
TITLE (TI): Use of ***secretin*** - ***receptor*** ligands in
treatment of cystic fibrosis (CF) and ***chronic***
obstructive ***pulmonary*** ***disease***
(COPD)
JOURNAL (SO): Patent: US 6780839-A 6 24-AUG-2004;

FEATURES (FEAT):

| Feature Key | Location | Qualifier |
|-------------|----------|--|
| source | 1..20 | /organism="unknown"
/mol-type="genomic DNA" |

SEQUENCE (SEQ):
1 tttggtcgta ttgggcgcct

L14 ANSWER 52 OF 65 GENBANK.RTM. COPYRIGHT 2005 on STN

LOCUS (LOC): AR567811 GenBank (R)
GenBank ACC. NO. (GBN): AR567811
GenBank VERSION (VER): AR567811.1 GI:53985688
CAS REGISTRY NO. (RN): 760797-64-6
SEQUENCE LENGTH (SQL): 22
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 8 Oct 2004
DEFINITION (DEF): Sequence 5 from patent US 6780839.
SOURCE:
ORGANISM (ORGN): Unknown.
Unclassified
REFERENCE:
AUTHOR (AU): 1 (bases 1 to 22)
Davis,R.J.; Page,K.J.
TITLE (TI): Use of ***secretin*** - ***receptor*** ligands in
treatment of cystic fibrosis (CF) and ***chronic***
obstructive ***pulmonary*** ***disease***
(COPD)
JOURNAL (SO): Patent: US 6780839-A 5 24-AUG-2004;

FEATURES (FEAT):

| Feature Key | Location | Qualifier |
|-------------|----------|--|
| source | 1..22 | /organism="unknown"
/mol-type="genomic DNA" |

SEQUENCE (SEQ):
1 cagagtaaa agcagccctg gt

L14 ANSWER 53 OF 65 GENBANK.RTM. COPYRIGHT 2005 on STN

LOCUS (LOC): AR567810 GenBank (R)
GenBank ACC. NO. (GBN): AR567810
GenBank VERSION (VER): AR567810.1 GI:53985687
CAS REGISTRY NO. (RN): 760797-63-5
SEQUENCE LENGTH (SQL): 22
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 8 Oct 2004
DEFINITION (DEF): Sequence 4 from patent US 6780839.
SOURCE:
ORGANISM (ORGN): Unknown.
Unclassified
REFERENCE:
AUTHOR (AU): 1 (bases 1 to 22)
Davis,R.J.; Page,K.J.
TITLE (TI): Use of ***secretin*** - ***receptor*** ligands in
treatment of cystic fibrosis (CF) and ***chronic***
obstructive ***pulmonary*** ***disease***
(COPD)
JOURNAL (SO): Patent: US 6780839-A 4 24-AUG-2004;

FEATURES (FEAT) :

| Feature Key | Location | Qualifier |
|-------------|----------|--|
| source | 1..22 | /organism="unknown"
/mol-type="genomic DNA" |

SEQUENCE (SEQ) :

1 gaaggtaag gtcggagtca ac

L14 ANSWER 54 OF 65 GENBANK.RTM. COPYRIGHT 2005 on STN

LOCUS (LOC) : AR567809 GenBank (R)
 GenBank ACC. NO. (GBN) : AR567809
 GenBank VERSION (VER) : AR567809.1 GI:53985686
 CAS REGISTRY NO. (RN) : 760797-62-4
 SEQUENCE LENGTH (SQL) : 24
 MOLECULE TYPE (CI) : DNA; linear
 DIVISION CODE (CI) : Patent
 DATE (DATE) : 8 Oct 2004
 DEFINITION (DEF) : Sequence 3 from patent US 6780839.
 SOURCE: Unknown.
 ORGANISM (ORGN) : Unknown.
 UNCLASSIFIED (UNCL) : Unclassified
 REFERENCE:
 AUTHOR (AU) : Davis,R.J.; Page,K.J.
 TITLE (TI) : Use of ***secretin*** - ***receptor*** ligands in
 treatment of cystic fibrosis (CF) and ***chronic***
 obstructive ***pulmonary*** ***disease***
 (COPD)
 JOURNAL (SO) : Patent: US 6780839-A 3 24-AUG-2004;

FEATURES (FEAT) :

| Feature Key | Location | Qualifier |
|-------------|----------|--|
| source | 1..24 | /organism="unknown"
/mol-type="genomic DNA" |

SEQUENCE (SEQ) :

1 tctctgtccg tgggtgaccc tgct

L14 ANSWER 55 OF 65 GENBANK.RTM. COPYRIGHT 2005 on STN

LOCUS (LOC) : AR567808 GenBank (R)
 GenBank ACC. NO. (GBN) : AR567808
 GenBank VERSION (VER) : AR567808.1 GI:53985685
 CAS REGISTRY NO. (RN) : 760797-61-3
 SEQUENCE LENGTH (SQL) : 20
 MOLECULE TYPE (CI) : DNA; linear
 DIVISION CODE (CI) : Patent
 DATE (DATE) : 8 Oct 2004
 DEFINITION (DEF) : Sequence 2 from patent US 6780839.
 SOURCE: Unknown.
 ORGANISM (ORGN) : Unknown.
 UNCLASSIFIED (UNCL) : Unclassified
 REFERENCE:
 AUTHOR (AU) : Davis,R.J.; Page,K.J.
 TITLE (TI) : Use of ***secretin*** - ***receptor*** ligands in
 treatment of cystic fibrosis (CF) and ***chronic***
 obstructive ***pulmonary*** ***disease***
 (COPD)
 JOURNAL (SO) : Patent: US 6780839-A 2 24-AUG-2004;

FEATURES (FEAT) :

| Feature Key | Location | Qualifier |
|-------------|----------|--|
| source | 1..20 | /organism="unknown"
/mol-type="genomic DNA" |

SEQUENCE (SEQ) :

1 ctttcgcagg acctctcttg

LOCUS (LOC) : AR567807 GenBank (R)
 GenBank ACC. NO. (GBN) : AR567807
 GenBank VERSION (VER) : AR567807.1 GI:53985684
 CAS REGISTRY NO. (RN) : 760797-60-2
 SEQUENCE LENGTH (SQL) : 22
 MOLECULE TYPE (CI) : DNA; linear
 DIVISION CODE (CI) : Patent
 DATE (DATE) : 8 Oct 2004
 DEFINITION (DEF) : Sequence 1 from patent US 6780839.
 SOURCE: Unknown.
 ORGANISM (ORGN) : Unknown.
 Unclassified
 REFERENCE:
 AUTHOR (AU) : Davis,R.J.; Page,K.J.
 TITLE (TI) : Use of ***secretin*** - ***receptor*** ligands in treatment of cystic fibrosis (CF) and ***chronic*** ***obstructive*** ***pulmonary*** ***disease*** (COPD)
 JOURNAL (SO) : Patent: US 6780839-A 1 24-AUG-2004;

FEATURES (FEAT) :

| Feature Key | Location | Qualifier |
|-------------|----------|--|
| source | 1..22 | /organism="unknown"
/mol-type="genomic DNA" |

SEQUENCE (SEQ) :

1 gaccagcatc atctgagagg ct

LOCUS (LOC) : AX348122 GenBank (R)
 GenBank ACC. NO. (GBN) : AX348122
 GenBank VERSION (VER) : AX348122.1 GI:18614226
 CAS REGISTRY NO. (RN) : 392536-17-3
 SEQUENCE LENGTH (SQL) : 21
 MOLECULE TYPE (CI) : DNA; linear
 DIVISION CODE (CI) : Patent
 DATE (DATE) : 6 Feb 2002
 DEFINITION (DEF) : Sequence 9 from Patent WO0202134.
 SOURCE: synthetic construct.
 ORGANISM (ORGN) : synthetic construct
 artificial sequence
 NUCLEIC ACID COUNT (NA): 6 a 8 c 5 g 2 t
 REFERENCE:
 AUTHOR (AU) : Davis,R.J.; Page,K.J.
 TITLE (TI) : Use of ***secretin*** - ***receptor*** ligands in treatment of cystic fibrosis (CF) and ***chronic*** ***obstructive*** ***pulmonary*** ***disease*** (COPD)
 JOURNAL (SO) : Patent: WO 0202134-A 9 10-JAN-2002; Pharmagene Laboratories Ltd (GB)

FEATURES (FEAT) :

| Feature Key | Location | Qualifier |
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| source | 1..21 | /organism="synthetic construct"
/db-xref="taxon:32630"
/note="Probe" |

SEQUENCE (SEQ) :

1 agcaaggcac caccttgcgc a

LOCUS (LOC) : AX348121 GenBank (R)
 GenBank ACC. NO. (GBN) : AX348121
 GenBank VERSION (VER) : AX348121.1 GI:18614225
 CAS REGISTRY NO. (RN) : 392536-16-2
 SEQUENCE LENGTH (SQL) : 23

MOLECULE TYPE (CI): DNA; linear
 DIVISION CODE (CI): Patent
 DATE (DATE): 6 Feb 2002
 DEFINITION (DEF): Sequence 8 from Patent WO0202134.
 SOURCE: synthetic construct.
 ORGANISM (ORGN): synthetic construct
 artificial sequence
 NUCLEIC ACID COUNT (NA): 3 a 5 c 6 g 9 t
 REFERENCE:
 1 (sites)
 AUTHOR (AU): Davis,R.J.; Page,K.J.
 TITLE (TI): Use of ***secretin*** - ***receptor*** ligands in
 treatment of cystic fibrosis (CF) and ***chronic***
 obstructive ***pulmonary*** ***disease***
 (COPD)
 JOURNAL (SO): Patent: WO 0202134-A 8 10-JAN-2002; Pharmagene
 Laboratories Ltd (GB)

FEATURES (FEAT):

| Feature Key | Location | Qualifier |
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| source | 1..23 | /organism="synthetic construct"
/db-xref="taxon:32630"
/note="Primer" |

SEQUENCE (SEQ):
 1 gtctcgattt tggacagact ctg

L14 ANSWER 59 OF 65 GENBANK.RTM. COPYRIGHT 2005 on STN

LOCUS (LOC): AX348120 GenBank (R)
 GenBank ACC. NO. (GBN): AX348120
 GenBank VERSION (VER): AX348120.1 GI:18614224
 CAS REGISTRY NO. (RN): 392536-15-1
 SEQUENCE LENGTH (SQL): 17
 MOLECULE TYPE (CI): DNA; linear
 DIVISION CODE (CI): Patent
 DATE (DATE): 6 Feb 2002
 DEFINITION (DEF): Sequence 7 from Patent WO0202134.
 SOURCE: synthetic construct.
 ORGANISM (ORGN): synthetic construct
 artificial sequence
 NUCLEIC ACID COUNT (NA): 5 a 5 c 6 g 1 t
 REFERENCE:
 1 (sites)
 AUTHOR (AU): Davis,R.J.; Page,K.J.
 TITLE (TI): Use of ***secretin*** - ***receptor*** ligands in
 treatment of cystic fibrosis (CF) and ***chronic***
 obstructive ***pulmonary*** ***disease***
 (COPD)
 JOURNAL (SO): Patent: WO 0202134-A 7 10-JAN-2002; Pharmagene
 Laboratories Ltd (GB)

FEATURES (FEAT):

| Feature Key | Location | Qualifier |
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| source | 1..17 | /organism="synthetic construct"
/db-xref="taxon:32630"
/note="Primer" |

SEQUENCE (SEQ):
 1 gaacgcggcg ctagaca

L14 ANSWER 60 OF 65 GENBANK.RTM. COPYRIGHT 2005 on STN

LOCUS (LOC): AX348119 GenBank (R)
 GenBank ACC. NO. (GBN): AX348119
 GenBank VERSION (VER): AX348119.1 GI:18614223
 CAS REGISTRY NO. (RN): 392536-14-0
 SEQUENCE LENGTH (SQL): 20
 MOLECULE TYPE (CI): DNA; linear
 DIVISION CODE (CI): Patent
 DATE (DATE): 6 Feb 2002
 DEFINITION (DEF): Sequence 6 from Patent WO0202134.

SOURCE: synthetic construct.
 ORGANISM (ORGN): synthetic construct
 artificial sequence
 NUCLEIC ACID COUNT (NA): 1 a 4 c 7 g 8 t
 REFERENCE:
 AUTHOR (AU): Davis,R.J.; Page,K.J.
 TITLE (TI): Use of ***secretin*** - ***receptor*** ligands in
 treatment of cystic fibrosis (CF) and ***chronic***
 obstructive ***pulmonary*** ***disease***
 (COPD)
 JOURNAL (SO): Patent: WO 0202134-A 6 10-JAN-2002; Pharmagene
 Laboratories Ltd (GB)

FEATURES (FEAT):

| Feature Key | Location | Qualifier |
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| source | 1..20 | /organism="synthetic construct"
/db-xref="taxon:32630"
/note="Probe" |

SEQUENCE (SEQ):
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L14 ANSWER 61 OF 65 GENBANK.RTM. COPYRIGHT 2005 on STN

LOCUS (LOC): AX348118 GenBank (R)
 GenBank ACC. NO. (GBN): AX348118
 GenBank VERSION (VER): AX348118.1 GI:18614222
 CAS REGISTRY NO. (RN): 392536-13-9
 SEQUENCE LENGTH (SQL): 22
 MOLECULE TYPE (CI): DNA; linear
 DIVISION CODE (CI): Patent
 DATE (DATE): 6 Feb 2002
 DEFINITION (DEF): Sequence 5 from Patent WO0202134.
 SOURCE: synthetic construct.
 ORGANISM (ORGN): synthetic construct
 artificial sequence
 NUCLEIC ACID COUNT (NA): 7 a 5 c 6 g 4 t
 REFERENCE:
 AUTHOR (AU): Davis,R.J.; Page,K.J.
 TITLE (TI): Use of ***secretin*** - ***receptor*** ligands in
 treatment of cystic fibrosis (CF) and ***chronic***
 obstructive ***pulmonary*** ***disease***
 (COPD)
 JOURNAL (SO): Patent: WO 0202134-A 5 10-JAN-2002; Pharmagene
 Laboratories Ltd (GB)

FEATURES (FEAT):

| Feature Key | Location | Qualifier |
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| source | 1..22 | /organism="synthetic construct"
/db-xref="taxon:32630"
/note="Primer" |

SEQUENCE (SEQ):
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L14 ANSWER 62 OF 65 GENBANK.RTM. COPYRIGHT 2005 on STN

LOCUS (LOC): AX348117 GenBank (R)
 GenBank ACC. NO. (GBN): AX348117
 GenBank VERSION (VER): AX348117.1 GI:18614221
 CAS REGISTRY NO. (RN): 392536-12-8
 SEQUENCE LENGTH (SQL): 22
 MOLECULE TYPE (CI): DNA; linear
 DIVISION CODE (CI): Patent
 DATE (DATE): 6 Feb 2002
 DEFINITION (DEF): Sequence 4 from Patent WO0202134.
 SOURCE: synthetic construct.
 ORGANISM (ORGN): synthetic construct
 artificial sequence
 NUCLEIC ACID COUNT (NA): 7 a 3 c 9 g 3 t

REFERENCE: 1 (sites)
 AUTHOR (AU): Davis,R.J.; Page,K.J.
 TITLE (TI): Use of ***secretin*** - ***receptor*** ligands in
 treatment of cystic fibrosis (CF) and ***chronic***
 obstructive ***pulmonary*** ***disease***
 (COPD)
 JOURNAL (SO): Patent: WO 0202134-A 4 10-JAN-2002; Pharmagene
 Laboratories Ltd (GB)

FEATURES (FEAT):

| Feature Key | Location | Qualifier |
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| source | 1..22 | /organism="synthetic construct"
/db-xref="taxon:32630"
/note="Primer" |

SEQUENCE (SEQ):

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L14 ANSWER 63 OF 65 GENBANK.RTM. COPYRIGHT 2005 on STN

LOCUS (LOC): AX348116 GenBank (R)
 GenBank ACC. NO. (GBN): AX348116
 GenBank VERSION (VER): AX348116.1 GI:18614220
 CAS REGISTRY NO. (RN): 392536-11-7
 SEQUENCE LENGTH (SQL): 24
 MOLECULE TYPE (CI): DNA; linear
 DIVISION CODE (CI): Patent
 DATE (DATE): 6 Feb 2002
 DEFINITION (DEF): Sequence 3 from Patent WO0202134.
 SOURCE: synthetic construct.
 ORGANISM (ORGN): synthetic construct
 artificial sequence
 NUCLEIC ACID COUNT (NA): 1 a 8 c 7 g 8 t
 REFERENCE:
 1 (sites)
 AUTHOR (AU): Davis,R.J.; Page,K.J.
 TITLE (TI): Use of ***secretin*** - ***receptor*** ligands in
 treatment of cystic fibrosis (CF) and ***chronic***
 obstructive ***pulmonary*** ***disease***
 (COPD)
 JOURNAL (SO): Patent: WO 0202134-A 3 10-JAN-2002; Pharmagene
 Laboratories Ltd (GB)

FEATURES (FEAT):

| Feature Key | Location | Qualifier |
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| source | 1..24 | /organism="synthetic construct"
/db-xref="taxon:32630"
/note="Probe" |

SEQUENCE (SEQ):

1 tctctgtccg tgggtgaccc tgct

L14 ANSWER 64 OF 65 GENBANK.RTM. COPYRIGHT 2005 on STN

LOCUS (LOC): AX348115 GenBank (R)
 GenBank ACC. NO. (GBN): AX348115
 GenBank VERSION (VER): AX348115.1 GI:18614219
 CAS REGISTRY NO. (RN): 392536-10-6
 SEQUENCE LENGTH (SQL): 20
 MOLECULE TYPE (CI): DNA; linear
 DIVISION CODE (CI): Patent
 DATE (DATE): 6 Feb 2002
 DEFINITION (DEF): Sequence 2 from Patent WO0202134.
 SOURCE: synthetic construct.
 ORGANISM (ORGN): synthetic construct
 artificial sequence
 NUCLEIC ACID COUNT (NA): 2 a 8 c 4 g 6 t
 REFERENCE:
 1 (sites)
 AUTHOR (AU): Davis,R.J.; Page,K.J.
 TITLE (TI): Use of ***secretin*** - ***receptor*** ligands in
 treatment of cystic fibrosis (CF) and ***chronic***

obstructive ***pulmonary*** ***disease***
(COPD)
JOURNAL (SO) : Patent: WO 0202134-A 2 10-JAN-2002; Pharmagene
Laboratories Ltd (GB)

FEATURES (FEAT) :

| Feature Key | Location | Qualifier |
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| source | 1..20 | /organism="synthetic construct"
/db-xref="taxon:32630"
/note="Primer" |

SEQUENCE (SEQ) :

1 ccttcgcagg acctctcttg

L14 ANSWER 65 OF 65 GENBANK.RTM. COPYRIGHT 2005 on STN

LOCUS (LOC) : AX348114 GenBank (R)
GenBank ACC. NO. (GBN) : AX348114
GenBank VERSION (VER) : AX348114.1 GI:18614218
CAS REGISTRY NO. (RN) : 392536-09-3
SEQUENCE LENGTH (SQL) : 22
MOLECULE TYPE (CI) : DNA; linear
DIVISION CODE (CI) : Patent
DATE (DATE) : 6 Feb 2002
DEFINITION (DEF) : Sequence 1 from Patent WO0202134.
SOURCE: synthetic construct.
ORGANISM (ORGN) : synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA) : 6 a 6 c 6 g 4 t
REFERENCE: 1 (sites)
AUTHOR (AU) : Davis,R.J.; Page,K.J.
TITLE (TI) : Use of ***secretin*** - ***receptor*** ligands in
treatment of cystic fibrosis (CF) and ***chronic***
obstructive ***pulmonary*** ***disease***
(COPD)
JOURNAL (SO) : Patent: WO 0202134-A 1 10-JAN-2002; Pharmagene
Laboratories Ltd (GB)

FEATURES (FEAT) :

| Feature Key | Location | Qualifier |
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| source | 1..22 | /organism="synthetic construct"
/db-xref="taxon:32630"
/note="Primer" |

SEQUENCE (SEQ) :

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